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ABSTRACT

To design a residential school program for multiply handicapped blind children and to develop identifying procedures for prospects for this type of program, 15 children (ages 5 to 13, legally blind, educationally retarded, multiply handicapped) of both sexes were enrolled in a 12 month program. The curriculum was based on a systematic presentation of real experiences to build concepts, continual participation in physical activity, on sensory stimulation and the encouragement of social interaction, and on an adaptation of the Montessori method. The children were evaluated at the beginning and end of the program by a multi-disciplinary team. The results indicated that all children except one made some improvement with the younger children showing most progress. Self care skills and social skills were improved. Findings also suggested that a group of five would be the ideal size, grouping should be according to functional ability, parental visits and vacations are beneficial, records must be kept and consultants available for individual evaluations, personnel must be well trained and screened, and further study is needed in like programs. Case studies are presented in two volumes, EC 004 819. (Author/JM)

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FINAL REPORT

Project No. D-071

Grant No. 32-47-0000-1007

VOLUME I

DEVELOPMENT OF A RESIDENTIAL EDUCATION PROGRAM
FOR
EMOTIONALLY DEPRIVED PSEUDO-RETARDED BLIND CHILDREN

May 1967

Amended April 1, 1969

U. S. Department of
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Office of Education
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DEVELOPMENT OF A RESIDENTIAL EDUCATIONAL PROGRAM

FOR

EMOTIONALLY DEPRIVED PSEUDO-RETARDED BLIND CHILDREN

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Oregon State School for the Blind

Salem, Oregon

May 1967

Amended April 1, 1969

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ACKNOWLEDGMENTS

We wish to express our gratitude to the parents of the children in the Demonstration Program for their cooperation, and for their acceptance of the conditions imposed by the nature of the study. We appreciate their continued interest and support.

We are indebted to all the staff members of the Oregon State School for the Blind on whose patience and understanding of the special problems of multi-handicapped blind children we depend. We are also grateful to the faculty and students of the several colleges and universities in this area, including the University of Oregon Medical School Complex, and to both the professional and lay members of the community and surrounding area for the many hours of volunteer service spent with the children.

We deeply appreciate the interest and support of all those concerned with the welfare of the multi-handicapped blind child, who so generously shared their ideas and suggestions with us, and who contributed so much effort and time to special projects for their benefit.

SUMMARY

A three year Demonstration Program was conducted at the Oregon State School for the Blind to design a school-residential program for multi-handicapped blind children, and to develop evaluation procedures which would make it possible to identify good prospects for this type of program.

Past experience of the school indicated that some children who exhibited severe social and behavioral defects made improvement if given highly individualized conditions; others who had no detectable neurological difficulties other than their blindness were not making progress. All were considered incapable of responding to academic material and were disruptive or non-participating in the classroom.

For this study fifteen children of both sexes between the ages of five and thirteen were enrolled in a twelve-month program. All were legally blind, educationally retarded, and had additional problems representing a variety of conditions. (See Table I, pp. 5 and 6) All but two, who lived at home, lived in a family residence on the campus, and were cared for by a staff of ten teacher-counselors, one of whom was co-investigator. The superintendent of the school was the Principal Investigator. A large number of volunteers worked on a regular basis. The program could not have been carried on without these additional workers.

The children were evaluated on entry into the program by a multi-disciplinary team at the University of Oregon Medical School, and again just before the end of the program. If indicated, repeated consultations were made. Assessment of estimated progress by the Department of Medical Psychology is shown in Appendix D.

The curriculum is based on teaching which employs systematic presentation of real experiences to build concepts, by continual participation in physical activity and exercise, and by sensory stimulation and the encouragement of social interaction. Expectations were adjusted and modified for each individual child, always considering his level of function and additional handicaps.

We feel that grouping should be on functional ability, not chronological age or kind of handicap. There is value in putting a hyperactive child with withdrawn children, and in having children of both sexes live in the same residence. Some instruction, both academic and in the skills of living needs to be taught on an individual basis, but instruction in small groups is also desirable. We felt the Montessori method could be adapted well for use with blind children. It can be combined with frequent field trip experiences to make full use of community and area resources.

A twelve-month program with four or more vacations not exceeding two weeks in length is advantageous for the multi-handicapped blind child who profits from being with his family. A child whose problems are aggravated by the home situation should remain at school until the situation is improved. Weekly communication with parents is desirable, especially for the child who spends weekends at home, to insure as consistent a program as possible. Conferences of a more formal nature to discuss long-range goals and objectives should be arranged every six months or oftener as the individual case demands.

A multi-disciplinary team of consultants experienced with the multi-handicapped blind child should be available to make periodic evaluations of the children, and to advise staff and parents in work with them. Cumulative records of the child's experiences, skills, history, and medical problems should be kept in detail and made accessible to all working with the child. Suggested forms in Appendices B and C need further study and refinement.

A training program is needed for both teachers and residence personnel who work with multi-handicapped blind children, either as a part of the training program for the visually impaired, or as a separate program. Also a screening program for applicants for the training is needed. Factors of basic personality and attitude toward difficult children appear to be more important than age and experience.

It appeared that the younger blind child profited most from this program. Suggestion was made for a home "instruction" program, using the curriculum developed as a guide, and adapted as necessary.

Our experience also leads us to believe that a modification of the sheltered workshop might be worked out which would provide the means for the severely multi-handicapped person to contribute to his support and maintain a self image of worth and dignity.

Much further study is indicated with the multi-handicapped blind. Fortunately many programs seem to be developing. As a body of data accrues, tested methods of helping these children realize their potential should be found.

INTRODUCTION

PROBLEM: To design a therapeutic school-residential program for multi-handicapped blind children, and to develop evaluation procedures which will make it possible to identify good prospects for this special program.

BACKGROUND OF PROBLEM: For several years the Oregon State School for the Blind has admitted a number of multi-handicapped blind children. Some of these children have disabling neurological conditions, in addition to their blindness. Many, however, have no detectable neurological difficulties other than their blindness; yet they display severe social and behavioral defects. For example, many are unable to carry out the simplest directions. Some cannot dress or feed themselves. Some have no capacity to use language or persist in echolalic utterances. Some are virtually immobile unless urged to change position. Some are unable to walk. Many are not toilet trained. Some are extremely sensitive to noise, while others vocalize or express non-purposeful movements continuously.

Typically, this type of youngster is excluded from schools for the blind. They are generally considered incapable of responding to academic material and are disruptive of classroom activity, or they are non-participants. The typical diagnostic label attached to them is mental retardation.

We believe that some of these children are emotionally deprived, pseudo-retarded children, who, given highly individualized care and attention, can be maintained in schools for the blind rather than to be restricted from school or admitted to institutions for the retarded.

We have come to associate an underlying deficiency in early childhood with pseudo-retardation in blind children. Lawrence Caslar (89) has reviewed the arrested neurological development in infants whose parents or caretakers fail to provide adequate stimulation. Weiner (77) contends that all blind children inevitably suffer some degree of stimulus deprivation. According to weiner (77) unless there is sufficient auditory and tactile stimulation in infancy to compensate for the lack of visual experience, a blind child is more prone than the normal child to develop an inward turning of behavior and thought patterns.

As part of the annual enrollment experience in our school, we make a practice of inquiring into parental attitudes and patterns of behavior which occur in the family life of the blind child. Many parents report that their blind child was a non-demanding, placid infant who also happened to be especially frail and small. Consequently he spent much time in a crib. Others did not seem to enjoy being cuddled, and

reacted negatively to parent stimulation. When these children arrive five to six years later at the School for the Blind, many are excessively withdrawn and unresponsive. Some exhibit a severe aversion toward any vocal or tactile stimulation; others tend to be hyperactive and noisy. Many respond so inappropriately that we have found it necessary, as have other schools, to exclude this type of child from the regular classroom. Until the beginning of the Demonstration Program reported herein, such children were given special class placement, but lived in the same dormitories as other resident pupils.

REVIEW OF RELATED RESEARCH: Prior to the present decade, a survey of the professional journals publishing material on the education of blind children yielded only few accounts of work with the multi-handicapped blind child, and those mostly with the deaf-blind. Recently, however, many pilot programs are being reported, both in the literature and at professional meetings. Interest seems wide-spread. (3,13,16,17,27,34,36,37)

There is general agreement as to the nature of the population. Any child may be regarded as multi-handicapped if he has more than one physical or mental disability which requires special services. The many possible combinations of disabilities are legion, and the disability may range from mild to severe. It is largely those with severe impairment, and with more than one additional handicap to blindness with whom we are herein concerned. Among these children may be several who are blind, epileptic, hard of hearing, mentally-retarded, emotionally disturbed, cerebral palsied, with speech problems, or any combinations thereof. (3,13,17,24)

Also, it appears that care for the severely multi-handicapped is usually provided either by private and/or state residential schools. There are some day-care centers, but the complexity of providing long-term, detailed, and complex training would seem to exceed a reasonable expectancy of the public school program. (24)

Another area of similarity in programs for the multi-handicapped blind child, is the necessity of a diagnostic team approach, including specialists from medicine, psychology, social work, and education. Also there is a need for staff meetings to evaluate and make changes in the individual program for each child. Agreement is evident that individual therapy and instruction is essential, and that social and living groups must be kept very small. Generally, living quarters are removed from the area used by the more normal children, but situated for easy access when desired. (3,17,24,34,69,79,98,116)

Methods of approaching the education and training of the severely multi-handicapped blind child are not as homogeneous as are descriptions of the population. Since training programs offered to teachers or residence personnel wishing to specialize in this field are practically non-existent, the variety of methods being employed is not surprising. Nor is there a body of material available that has been tested. There is concensus of opinion that the severely multi-handicapped children do not profit from traditional methods and materials in the academic classroom. (3,13,17, 24,34,79,98)

Frequently teachers take training in methods of teaching mentally retarded children in addition to the methods used with visually impaired children, or a team approach is used, employing teachers from both fields. Modifications of the program may be suggested by the consulting psychologist. Training in living skills such as dressing, eating, bathing, etc. are generally included. Pre-vocational and social skills are stressed. Often it is found that expectations are too high, that it is necessary to begin by establishing the simplest kind of relationship between the child and adult. (17)

The program should be conducted virtually on a one-to-one basis and developed in terms of the individual characteristics of the child. (3) Based on the assessment of a multi-disciplinary team, the program is geared to encourage the child to function at his present level, and goals are changed as progress is made. Some use the Skinnerian approach--the experimental analysis of behavior and shaping techniques and the use of positive reinforcement. (85) Some stress developmental recapitulation through motor activity (94), and others rely on psychotherapeutic approaches. (69) Many select from these programs and provide a therapeutic milieu designed to help the child achieve step-by-step progress in development. (3)(13,76)

OBJECTIVES: The over-all objective of the program is to design a therapeutic school-residential program for the multi-handicapped blind child. The purposes of this program will be:

- a. To identify those children who can profit from such a program from the large group of multi-handicapped blind children.
- b. To develop evaluation procedures which will make it possible to identify good prospects for this special program.
- c. To maintain these children in the special program only so long as they require its protective benefits, and to move them into regular school classes as soon as possible.

- d. Insofar as possible, to avoid the institutional transfer of the multi-handicapped child to the mental hospital or the home for the retarded.

METHOD

POPULATION AND SAMPLE: Fifteen children were enrolled in a residential academic program designed as a twelve month experience on the Campus of the Oregon State School for the Blind. Youngsters were eligible if their parents were residents of the state; if they were between the approximate ages of four to twelve years; and if they had been rejected or excluded from regular school programs because of physical, psychological, or learning capacity deficits which were of sufficient degree to suggest that the child would not be able to get along in the school program. The number was limited to fifteen.

There were eight boys and seven girls. Nine of the children had been at the Oregon State School for the Blind for two or more years and had demonstrated their inability to profit by regular classroom instruction and dormitory living. Two of the children had been rejected by other schools in the state. One child was not eligible for regular classroom instruction because of recent brain surgery. One child had been in Fairview Home for the Mentally Retarded. Two children entered the program at the beginning of the second year of the project. Neither was eligible for regular classroom instruction.

The fifteen children in the demonstration program were from twenty-eight multi-handicapped children known to us who had visual difficulty. Nine of the children had been admitted to the Oregon School for the Blind over a period of years. On demonstrating an inability to function in regular classes, they had been placed in special classes. One child had transferred from the home for the retarded on the school doctor's recommendation, and at his parents request. The other five children were admitted in order of application if they met the conditions in the first paragraph of this section.

All children had a visual problem, were educationally retarded, and had one or more additional problems. (See Table I, pages 7 and 8).

While writing the proposal for this demonstration program, the matter of a control group was discussed. The small number of children involved precluded valid random sampling. The factors involved in the multi-handicapped blind population are so varied and complex that they ruled out a matched sample. Nine of the children had already been enrolled in special classes where some of the methods upon which this program is based had already been tried, so could not be equated with children who had not been so exposed. Each child, therefore,

TABLE I
DESCRIPTIVE CHART OF AGE AND ETIOLOGY

CHILD	AGE AT ENTRY	AGE AT DEPARTURE	VISUAL PROBLEM	ADDITIONAL PROBLEMS
A	5 years 5 mos.	8 yrs. 1 mo.	Retrolental Fibroplasia Light Perception ?	Premature (triplet) Behavior problem, Retardation (severe)
B	1 yrs. 11 mos.	7 yrs. 9 mos.	Congenital Nystagmus Baseline of vision: near - fair far - poor	25% hearing loss, Speech problem Problem of balance Retardation (moderate)
C	13 yrs. 14 yrs.	16 yrs. 0 mos.	Retrolental Fibroplasia No light perception	Premature, No speech until 5 yrs. Meningitis following mumps, 1957 Retardation (moderate)
D	11 yrs. 7 mos.	14 yrs. 3 mos.	Retrolental Fibroplasia No light perception	Premature, Seizures-non specific Mild spastic diplegia, Behavior problem Retardation (moderate)
E	9 yrs. 9 mos.	12 yrs. 6 mos.	Retrolental Fibroplasia No light perception	Premature, (twin) speech problem Spastic paraplegia, emotional problem Retardation (severe) ?
F	9 yrs. 1 mo.	11 yrs.	Retrolental Fibroplasia Cortical Blindness Light Perception ?	Premature, Speech defect Spastic paraplegia, Seizures (grand mal) Retardation (severe)
G	7 yrs. 9 mos.	10 yrs. 5 mos.	Optic Atrophy Cataracts Light Perception	Premature, Seizure in infancy Speech problem (athetosis ? 1959) Cerebral damage Retardation (mild)

TABLE I cont.

CHILD	AGE AT ENTRY	AGE AT DEPARTURE	VISUAL PROBLEMS	ADDITIONAL PROBLEMS
H	10 yrs. 9 mos.	13 yrs. 6 mos.	Retrolental Fibroplasia Glaucoma (secondary) No light perception	Premature (twin) Psychological character changes secondary to blindness Retardation (mild)
I	12 yrs. 6 mos.	15 yrs. 2 mos.	Retrolental Fibroplasia No light perception	Premature, speech delayed Behavior problem Retardation (severe)
J	12 yrs. 8 mos.	15 yrs. 5 mos.	Retrolental Fibroplasia Bilateral cataracts Light perception - right eye only	Premature (twin) Restriction of flexion of spine Atrophy of dorsal hand musculature Adjustment reaction of childhood aggravated by blindness Retardation (moderate)
K	10 yrs. 11 mos.	12 yrs. 7 mos.	Retrolental Fibroplasia No light perception	Premature, mild heart murmur, delayed speech with stammering, urinary drib- bling. Retardation (moderate)
L	7 yrs. 4 mos.	10 yrs. 0 mos.	Optic Atrophy (onset 7 years) Count fingers - left eye Hand movement - right eye	Two left parietal craniotomys for cellular ependymoma, Arrested hydrocephalus, Spasity lower legs History of ulcer
M	6 yrs. 11 mos.	9 yrs. 3 mos.	Cortical blindness due to: Count fingers at 2 ft.	Organic brain damage from prolonged anoxia, Seizure disorder-non-specific, Speech problem when under tension Retardation (borderline)
N	5 yrs. 9 mos.	7 yrs. 7 mos.	Retinoblastoma (onset at birth) No light perception	Twin Mild motor retardation
O	9 yrs.	11 yrs. 5 mos.	Congenital glaucoma 3 to 5/200	Character behavior problem (Mother had meningitis during pregnancy)

was to serve as his own control, as measured by the change in his level of functioning.

PHYSICAL FACILITIES: The majority of the children lived in a former Principal's residence located at a distance from the other dormitories on the seven acre campus. This building was a short distance from the Infirmary, where four of the children slept. The children ate in the dining room where all the children of the school eat, but in a separate group. They were supervised by the staff of the Demonstration Program.

During the first year of the program most of the instruction was carried on outside the school building. For the remaining two years of the program, classroom and office space was provided in the school building. Basement rooms in the boy's dormitory were converted into a Sensory Stimulation Center which provided new and interesting areas for physical activity indoors. The architect's drawing provides for four areas of activity increasing in difficulty and providing many different textured surfaces, a variety of forms to be explored, ladders, enclosed spaces, mazes with blind alleys, differing planes, hidden clues, lights, sounds, and even vending machines to provide reward for the accomplishment of feats of skill. This facility is not completed, but has been partially finished and used for two years. The gymnasium, including the heated swimming pool and other recreational facilities, has been used during the entire three years.

Since the Demonstration Program was of twelve months' duration, instead of the nine month school year, the entire infirmary sleeping quarters were used one summer, and a section of the boys' dormitory the second summer. Comparison of the merits of these different types of housing units will be made in the section on Discussion.

An important feature of the campus of the Oregon State School for the Blind is the arrangement of buildings. Spacing and direction aid in teaching mobility and orientation. This is shown in the film, SHOW US THE WAY, made as part of the documentation of the Demonstration Program, and on the map shown on page 1 of the Appendix A.

The Oregon State School for the Blind is located within the city of Salem which has a population of 60,000, and is situated in the Willamette Valley. Extensive use was made of both central community and surrounding area communities and recreational areas for concept building through field trips, and for social experience. Access to farming, lumbering, and the pacific coastal area, as well as city experiences, was necessary to our program, as was the fact that we were within a seventy-five mile radius of three major universities and six smaller colleges interested in education.

STAFF: The staff was composed of the Principal Investigator, who is Superintendent of the Oregon State School for the Blind, the Principal Co-investigator and supervising teacher, three teachers, three dormitory counselors, two child care workers, and a part-time secretary. During the second year an additional half-time position of dormitory counselor was authorized, and was filled by the person who was also half-time secretary.

It seems pertinent at this time to mention that at the Oregon State School for the Blind, the role of house-parent is filled by both child care workers and dormitory counselors, the latter being required to have two years of college training or the equivalent in in-service training. Applicants for both positions must pass examinations given by the State. For our Demonstration Program we were most fortunate to secure dormitory counselors who were either college graduates or had almost attained a degree.

In addition to staff paid from Federal funds, the school employs a trained social worker, a clinical psychologist (part time), a pediatrician (part time), and maintains an infirmary and trained staff, a dietician and dining room staff, and other ancillary services. Consultative resources from the University of Oregon Medical School were available for diagnosis and special treatment.

Student speech therapists under the direction of the Oregon College of Education worked with some of the children; studies of individual children were made by other students for courses in child development. Practicums in Departments of Psychology and Sociology of Willamette University gave students experience with blind, multi-handicapped children, and provided the children with individualized educational experience. These students worked directly with staff members of the Demonstration Program.

Also supplementing paid staff, and working closely with them, were volunteers from Willamette University, Church groups, mothers of children in the regular school program, and other women of the community who offered their services. All of these people were interviewed by the committee on volunteers consisting of members of the school staff, and instructed and supervised by staff members and the supervising teacher. They assisted with exercises, piano practice, field trips, singing and games, establishing conditioned responses, and the establishing of social relationships. (See Appendix E) They were very important in implementing the Program as reported in the section on Discussion.

STAFF TRAINING: The staff of the Demonstration Program except for the three teachers who were hired directly by the superintendent of the school, were obtained through the state civil service commission. Open competitive examinations were

held, and lists of those meeting the qualifications were submitted to the school, who then interviewed the applicants and selected from those lists.

The examination for both child care worker and dormitory counselor consisted entirely of a written test designed to measure the candidate's knowledge of child development and growth, general sociological concepts, and other areas pertinent to the duties of the positions. The duties are defined as assisting in guiding, counseling and training handicapped children in adjusting to group life and normal living situations; and to lead children in leisure and recreational activities; as well as performing necessary house-keeping duties.

The dormitory counselor position differs from the child care worker in that he is responsible for children when they are most active. He may have a limited supervisory responsibility.

Minimum qualification requires that a child care worker be a high school graduate, preferably supplemented by one year of paid experience in working with children. A dormitory counselor must be a graduate from senior high school and have two years of college or university study with course work leading to graduation in the social sciences; or two years of child care experience which must include at least one year of experience in the institutional care of physically handicapped children, supplemented by either nine quarter hours of appropriate college credit or one-hundred-twenty clock hours of a formalized and approved in-service training program in child care; or an equivalent combination of experience and training.

Applicants were interviewed jointly by the co-investigators, who briefly described the nature of the program and the characteristics of the children. Of those applicants who continued to express interest in the position, selection was made on the basis of examination grade, personality, and previous experience.

Prior to the beginning of school, members of the staff spent approximately two weeks in in-service training with the principal co-investigator and the supervising teacher. During this time meetings were held with regular school personnel, discussing policy and orienting new members to facilities, resources, schedules, and general procedures of the school. The purposes of the program were discussed and the duties of each staff member defined.

All staff members were requested to study the records of each child enrolled in the program, including information supplied by parents, referring agencies, social case history records, educational records (if any) and medical records available.

The type of reports to be written on the children's behavior was discussed and decided upon. In the beginning each staff member was requested to write anecdotal records; a brief summary to be entered in the daily log, and a more complete statement to be then written and given to the secretary to become a part of each child's individual record.

The staff was provided with books on developmental psychology, and various current articles were brought to their attention from time to time. The secretary procured books from state and college libraries which were reloaned to staff members. Professional materials, both books and journals, were made available to volunteer students also. Pertinent ideas from these sources were discussed both among individuals informally and at staff meetings.

As mentioned earlier, training programs for teaching the multi-handicapped blind child are practically non-existent. Staff members had all been trained in working with children, but the training had not been uniform. Daily consultation and weekly staff meetings were planned, a bulletin board and bookshelf provided literature in addition to the resources mentioned above. Group meetings were held with consultants, and with members of the general staff.

Members of the staff of the demonstration program also attended local and state meetings, conferences, and conventions on one or more of the handicaps pertaining to the student population. They then reported to the rest of the staff. At times the children would be given extra time at home so that the entire staff might participate in meetings of especial value; or at times staff alternated being on duty and in attendance at meetings. The Principal Co-ordinator and the supervising teacher visited other centers for the multi-handicapped blind child and reported observations on these other programs to the staff members.

METHODS DEVELOPMENT: THE GENERAL APPROACH: The children enrolled were characteristically deficient in their ability to identify and relate to objects, persons, and activities. The educational task with these children was to make such identities useful and desirable to the child; to help him associate more meaningful attributes of objects, persons, and activities with their name labels; to perfect his recognition and retention capacities with respect to language symbols, and to encourage the realistic use of personal relations, activities, and objects in the child's daily adaptative behavior.

The teacher-counselor's role with the multi-handicapped blind child is a very difficult one. For example, she needs to accept children who are noisy-yet she must protect some of them from other children's noise. She must welcome the children's embrace and yet exercise restraint in her own

affectionate impulses. She wants to be constantly examining her daily performance for flaws--yet she must carefully shield the child from his imperfections.

During the first months in the program the children were involved in the assessment of their problems, in becoming familiar with the staff and with considerable opportunity for free play in the company of each other. As part of the formal assessment activity, the staff observed each child for his typical distress and pleasurable responses. Special attention was given to documenting those stimuli which tended to frustrate and irritate the child, as well as those which made convenient rewards or reinforcing agents in the education-living training program. As with normal children, there were gross differences in the kinds of stimuli which served this purpose. The stimuli changed during the time spent in the program. Candy might work well for one, but not for others. Some preferred a toy, or a scent; for another it might be a sound, or listening to a favorite record. Social privileges had less utility in the beginning, but acquired great usefulness by the end of the program.

In the educational program a general study and living-experience plan was described for each child. Concrete experiences, repeated several times, had value for most children. Others needed freedom to explore for themselves. Verbal interpretation on the part of the teacher-counselor, associated and concomitant with, the experience or exploration was generally used to teach language skills.

As progress with the child became apparent, or as time passed without such evidence, the teacher-counselor needed to remain hopeful and avoid frustration. This type of child appears to be highly sensitive to tension in those about him. Unlike the normal child who can often use tension to his advantage, the multi-handicapped blind child generally falters with the onset of tension. Therefore, insofar as possible, the staff attempted to avoid or minimize incidents or curriculum materials which habitually built tension. For example, repetition was vital. Yet, if employed inappropriately it was devastating for these children. The dosage had to be brief. Yet, with skill the teacher-counselor could introduce a wide range of objects, actions, and persons within a single teaching episode all addressed to the same theme and retain pupil interest. Most effective was using some facet of the pupil's own interest as the starting point for developing the teaching experience. It was useful, for example, with these children to approach the identification of an orange or a shoe through different sensory channels. Without vision, the auditory, tactile, gustatory, olfactory, and position senses have to carry corresponding behavior loads.

METHODS DEVELOPMENT: THE SPECIFIC APPROACH: The Demonstration Program was staffed by persons with a variety of background training. The supervising-teacher and three regular staff workers had been employed at the School for the Blind previously. Also during the summer months, experienced dormitory and teaching staff members supplemented and augmented staff. The first year on-the-job-training was regularly scheduled, especially in the area of living skills. (See movie SHOW US THE WAY filmed in the summer of 1965). The manner of approach to a problem was stressed more than the particular skill being taught, as this general training could then be transferred to other tasks. Also, those staff members who had already been employed in dormitories at the school were frequently consulted as to ways of teaching skills. It was felt that the children needed to be observed to find which method was best suited for each individual child, and that this should be consistently carried through by all staff. Also, that the approach should be gradual and well below the frustration level. Success was necessary to the development of a positive attitude on the part of the child. Staff members were encouraged to think through the situations in past experience and base the approach to problems on successful methods used. If new ways were discovered that were good, they were communicated to the rest of the staff.

RECORDS: In the beginning each staff member was requested to write anecdotal records; a brief summary to be entered in the daily log, and a more complete statement to be written and given to the secretary to become a part of each child's individual record. Each person was asked to report on the child's ability to attend to toileting, dressing, eating, orientation and mobility, and general social behavior with both adults and other children. The staff was asked to note especially the child's more typical distress and pleasureable responses, those stimuli which tended to frustrate and irritate the child, as well as those which would make convenient rewards or reinforcing agents in the education-living training program. They were also to report reactions to new situations and persons.

When the children arrived at the school with their parents at a designated time, they were shown the residence, and each child was provided with an activity which he was known to enjoy. Only those children who had been attending as members of a special class at the School for the Blind were admitted at the beginning of the school year. The other children came, one each week so that they might be more easily assimilated into the group. All the children had arrived by November 1.

The parents of each child were interviewed by the Principal Investigator, the supervising teacher, and as many staff members as were free to attend. The goals and purposes of the project were explained in detail, including the role of the school and that of the parents. Many of the children spent the week-end at home with their families, either every week or at frequent intervals. Times for weekly conferences

between the staff and parents were arranged. For those children who rode public transportation, the telephone interviews were generally used, supplemented by periodic conferences either at the school or in the child's home. Many of the parents called for the children Friday afternoon and brought them back either Sunday evening or Monday morning. Parents were given a developmental history form, more detailed than the one used for general admission to the school, which they were asked to fill out at home and return to the school. (See Appendix B)

Arrangements were made for each child to be examined at the University of Oregon Medical School. They were seen first by Pediatrics, who referred them for special tests whenever indicated. All were referred at our request to Neurology, Ophthalmology, and Psychology. In this way an objective examination was made, quite separate from the ones made by the school staff. In a number of cases, medical problems were found, and treatment was prescribed and carried out involving continuing re-evaluation and treatment. Many of the children were already, or are now, receiving medication. Routine medical services were provided by the school staff.

Six months before the end of the program in May, 1967, appointments were made for re-evaluation of the children at the University of Oregon Medical School. Although a verbal agreement had been made that the same doctor in training would see the children for the re-evaluation, this was impossible because of his untimely death during the second year of the program. However, the doctors in charge were the same. Because of the many referrals and return visits to other departments during the initial examinations, and the need to allow sufficient time for re-evaluation, there was an average of less than two years time between first and final tests on the children.

SPECIFICS OF THE EDUCATIONAL PROGRAM: The term "educational progress" refers to both the formal classroom program and to the living-experience program. Curriculum differed from the usual kindergarten and primary one in that special emphasis was placed on the development of concepts and the provision of many and varied experiences. Large amounts of sensory stimulation were provided, and an unusual emphasis on physical exercise was given.

Because we had found in the past that these children lack knowledge assumed to be common to all children, a series of activities to build concepts was planned. Lists of experiences mentioned in the State adopted primary texts were made. This was followed by a systematic effort to provide experiences that would build concepts and provide a basis of understanding for the stories the children might be asked to learn to read. For example, if a story might be about the making of an apple pie, we made arrangements to take the

children to a small orchard where they were able to examine apples growing on a tree. Time was spent on a one-to-one basis, with each child explaining as much about the tree as possible. He would then pick several apples, both from the ground and from a ladder. The apples were taken back to the kitchen, washed, peeled, cut and baked into a pie. The children also helped to make the pie crust, tasting and examining each ingredient as it was used. They smelled it, baking, and had the satisfaction of eating it. Not once, but repeatedly they baked an apple pie, or gathered apples and used them in other simple cooking and eating experiences. The emphasis was on repeating the experience with slight variations sufficiently often for some generalization of learning to occur. Tape recordings were made of the experiences related by the children. This provided language training and could be used for listening experience as well. This was especially useful for those children with speech problems.

For a pictorial description of a field trip to the gardens to gather vegetables and the subsequent teaching activities, please refer to the film made during the summer of 1965, SHOW US THE WAY.

We have stated that an individual program was planned for each child, listing realistic goals in accord with his particular level of function. A group field trip seems contradictory, yet the goal on any particular trip was both general and individual. Just as members of a family on an outing learn according to their age and ability, so these children were taught. For Child A, who had been in the home for the retarded, the ride in a bus to a strange situation was so terrifying that it caused him to scream. The immediate goal set for him was to learn to tolerate bus riding. In the beginning he was always beside an adult whom he knew well and who gave him special attention and help to overcome his fear. While he was shown the apple on the tree in the orchard, more time was spent just helping him explore the new situation with attention to details.

However for Child L who lived at home with his family and was accustomed to trips to new situations, the emphasis was on the word "orchard" as a group of trees, a simple explanation of the function of parts of the tree in the growth of the apple while exploring them with his hands and body. For children in between in experience and ability, the adult would try to give just a little more than the child could be expected to understand. Challenge the child! He may be more able than you think.

For all the children an attempt to associate the word with the object was made. With the apple this was easy. He could put his hands around the apple (if he had developed far enough that he would touch an object strange to him),

he could smell and taste it. The tree was different. He must look at it from the roots which he felt go down into the soil; up the trunk, feeling the branches go out from the trunk on all sides; following one or more of them out to the smaller twigs; and finally finding the point of attachment of the stem to the tree branch and to the apple. He would still not have a concept of "treeness" but would need a small model that he could feel with his hands. He would also need to explore other varieties of trees, and repeat the experience many times.

The most striking difference between most of the children in our program and a group of normal blind children having the same type of experience, was the necessity to compel most of the children to explore. Their tendency was to withdraw from the situation by inattention, unrelated body movements such as twirling, jumping, etc. or just plain resistance. We used persuasion, and force when necessary, to put them physically through the action of exploring, stopping only when we felt they had reached their threshold of tolerance. It was most important that the staff members remain encouraging and supportive, even enthusiastic in their attitude, despite the child's protests. One important form of reward was to leave the child alone for a short time after he had complied with demands made upon him. At the beginning of the program most of the children resisted activity, especially new experiences. By the end of the first nine months most of them were eager to go on the bus and explore new places.

Being a small group and living in a three-bedroom home we stressed the family atmosphere. We took full advantage of our fireplace. The children greatly enjoyed bringing in materials and helping to build the fire. They were quick to note different sounds and odors from varied fuels. Tearing waste cartons to burn strengthened fingers and provided opportunity for every child to make some contribution toward making the fire.

Another advantage of the home atmosphere was that we had a fenced yard in which to keep our pets. So many blind children have had no experience with animals and many are reluctant to touch them. Popcorn, a mature white cat was with us from the beginning. Myrtle, the turtle, lived all winter in a box in the utility room. She was cared for by the older children who enjoyed going to the kitchen to get lettuce and hamburger for her, and giving her a pan of water in which to bathe. We had a crow for a few days, long enough for the children to examine a bird and see what it was like.

Charlie, the duck, came to us the first fall. She had been raised as a family pet and was very friendly and allowed the children to pet her. She obligingly swam in the bathtub pond while the children had their hands in the water. The

following spring Charlie surprised us by laying eggs and was joined by a drake to provide some natural sex education. Upon his arrival the first question was "What is his name?" When told that he had no name, one child suggested Edward, her father's name, and another "Quack". That is how Mr. Edward Quack became a part of our family. The children enjoyed noting the difference in tone of their "quacks" which encouraged sound discrimination.

That spring we acquired Sugar, a Collie. She was most friendly and affectionate. On our campus we already had another Collie, who lived in the house next door. Introducing the two dogs was a good lesson for the children. Fortunately the two dogs quickly became good friends. They were often joined by a German Shepherd from across the street. The children learned to distinguish not only the difference in their barks, but the difference in the sound of their feet as they trotted along the walks.

We also had Poppins, the canary, rabbits and guinea pigs. Feeding and caring for pets, learning to treat them kindly and taking responsibility for their well being widened the experience of the children.

LANGUAGE DEVELOPMENT: Language development was fostered throughout the total school-living program. As indicated, the teacher-counselor tried to develop the best individual means for encouraging language with each child. Words were used singly, then in phrases, associated with an object, action, taste, or odor.

Especially during the first year the field trips described in the previous section formed the basis for taped material made by the children and used for listening at a later time, thus providing repetition of vocabulary and ways of describing experiences. A teacher led the discussion and incorporated correction of pronunciation and grammar by restating the sentence as a part of the discussion. Definitions of words were routinely included. It was necessary to do individual taping with some children, while others could take part in group discussion.

Records and talking books from the school and regional libraries were used to supplement records bought especially for the program. Story tapes recorded especially for blind children, and those made for sighted children were used extensively. These materials were used by the staff in the living situation in the same manner as the teacher used. An adult listened with the children to ask questions and discuss the stories so that they learned to listen for content.

Dramatic play formed an important part of the language arts instruction. Here again the children needed an adult playing with them to teach them how to act a part. Dolls,

toys, and other props were provided and the children encouraged to use them.

Most important to this development were the formal planning sessions by all of the staff, and the close cooperation and communication of all staff members. Generally the plan originated with the teachers, but had it not been carried through by the other staff members the accomplishment would have been far less. Many of the details were improvised and created by the staff members in the living situation. Teachers cooked in the kitchen of the cottage and the counselors and child care workers assisted in teaching in the classroom. We felt it was important that the children learn to concentrate on one idea for several days, both in the classroom and living situation.

The use of the telephone was encouraged. There was much practice on the toy phones, planning what to say, and for those with articulation problems, practice on sounds. As a reward those children whose parents had phones were encouraged to telephone home once a week at a scheduled time convenient to both the school and the parents. The children worked hard for this privilege. A Walkie-Talkie used outside was also valuable in learning experience.

Formal speech therapy was provided for some of the children through students from the Oregon College of Education.

READING: Written material relating to a field trip or current activity was presented at regular intervals to all the children considered ready for this experience. Children C, D, H, J, K, L, and M had regular sessions scheduled. In the beginning Children L and M were tried in regular classroom sessions while the others were given individual instruction. As the teachers reported their lack of success they were removed from the larger group and shared instruction in pre-primer materials. Later they both received individual instruction.

The first year individual instruction was given in the bedrooms of the living situation. Noise proving too distracting, it was arranged the second year to convert a small room formerly used for piano practice in the school building, into a room for individual instruction. We were limited by the number of small rooms available.

Children L and M were given seven months instruction in Ginn pre-primer materials using both regular size and large size braille materials. The teacher made the large size materials and flash cards in both sizes. Different sizes were presented in alternate order the first time, i.e., either first the large and then the regular, or vice versa. After that they were presented in random order but

an equal number of times during each session. The same method was used with pupil composed stories. There was no significant advantage for either size. Word recall ability varied greatly from day to day. Forgetting was rapid.

Partially sighted children were observed as they looked at print material which were kept available in both the living and classroom situation. At intervals they were tested with simple pictures. Child L was changed to print materials (Ginn) in June, 1966, and continued with instruction in pre-primers, workbooks, and teacher-made materials. At this time print writing was introduced, following Ginn materials with some supplementary material from Heath pre-primers.

NUMBER: Arithmetic, like language, was fostered throughout the total school-living program. Big, little, round, square, concepts of quantity and contrast were a part of every situation. Two slices of bread are needed for each sandwich; five cookies are needed for five children, two sheets and one pillowship are needed to change the bed; it takes ten pennies to buy a candy bar at the store. Constant teaching using problems of daily living formed the basis of the number program.

Rote counting exercises came by counting steps from the door to the crosswalk; counting the five blocks left to pick up and put into the box; by jumping seven times on the big innertube.

The concept of time, also, was in inherent part of the daily living schedule. The child was told, "Breakfast is at eight. How soon must you get up to be ready if you are slow? If you hurry?" or "The timer bell will ring in five minutes and then it will be your turn." or "Today is Thursday and tomorrow Mother will come for you to take you home for the week-end."

We had to conform to the general schedule of the residential school so that the children learned to accept limitations of activities related to time. Within the living situation itself we were more flexible and tried to keep it on a home like basis. We helped the children choose early or late bathtime, long or short story, winter or summer wrap, or any other decision they could make related to time, calendar, or season so that they might learn to make choices and a reason for making the choice.

Classroom program beside the incidental one was often planned around real objects. One child would go with an adult to the storeroom to count the jars of paint of each color, the number of counting frames, etc.

During the first summer one of the teachers took a

special course in the use of Cuisenaire Rods in teaching arithmetic. Two teachers of regular classes in the school took the course also, and one of them was scheduled to assist in our program if two other multi-handicapped children in the school, but not children in the demonstration program, were admitted to the class. Children C, D, H, J, K, and L participated in this program, but were not all in the group at the same time so that the group was kept to six with two teachers. Stern's materials were available and were explored by the children, but neither teacher used them consistently.

The following year the Montessori teacher worked with small groups of children. She used objects such as pop beads in addition to the didactic materials. (112, 113) The Stern rods are similar to the ten rods used in teaching length and have the advantage of the grooves dividing the rods in a way that a totally blind child can use. She also made more methodical use of teaching numeration by using money, reviewing the identification of coins. Much oral arithmetic was used. The Golden Materials which are beads showing ones, tens, hundreds and a thousand concretely were useful. Colored beads (color coded throughout the materials) that hung on a rack were also helpful. The cylinder blocks taught dimensions. Teacher made cards with both the print and braille symbol matched by the appropriate number of cork disks glued on were used for independent study.

Most of the instruction was on a one-to-one basis. Toward the end of the period two or three children functioning near the same level could work together. During the second year of the program the groups were too large and had to be reduced in size.

ARTS AND CRAFTS: This proved to be one of the areas difficult to develop and adapt to the children's additional handicaps. Our goal that it might serve as a means of self-expression was unrealistic. Children L and M were able to enjoy the activity for itself to some extent, but the other children required an extrinsic or social reward.

Some children, like O and N, did not want to touch anything at all. They would not hold materials in their hands nor touch anything unfamiliar. As on the field trips they had to be put physically through the motions of squeezing a chunk of clay, smearing finger paint, or glueing small objects to paper to make a collage picture.

We began with clean feeling materials such as plastics, smooth cloth, nuts in as many varieties and kinds as we could get. Added to the supplies usually found in a school supply closet, we found a box of odds and ends to be found in most households invaluable. Such items as buttons, plastic medicine bottles, a cosmetic tube or box that had been cleaned and many others were brought in by the staff members.

We used a variety of textured materials of all kinds after the children had begun to accept smoothness. The Montessori teacher prepared boxes of many different materials cut into rectangles of about six by eight inches. The children learned to name and match the materials. One of the parents brought in sample books from an upholstery shop, drapery and curtain sample books, and floor covering samples.

We obtained grains of all kinds both on the stalk as they grew and were threshed. We filled a sandtable with wheat (untreated) and encouraged the children to pour and scoop it. We also put a quantity into a very large carton and allowed the children to get inside as in a large sandbox. We provided measuring cups from one-fourth cup to one gallon in a number of different shapes and materials. Dry corn on the ear was shelled in quantity.

Following the experience of exploring kinds of grains the children made pictures by smearing glue on paper, pouring the grain over the wet glue, and then shaking off the excess. Several kinds of grains could be used in a single picture producing a number of colors and textures. These and the collage pictures made by dipping a number of small objects into a puddle of glue and putting it on paper provided many pictures which the children could take to the cottage, hang on the bulletin board, or take home. Lavish praise from everyone gave the child a feeling of accomplishment, as well as the concrete evidence in his own hands that he could make something. Even though the teacher may have had to help with each step, it was his picture!

For fingerpainting we used chocolate syrup, or Jello with just a little warm water mixed with the dry gelatin. The odor and taste helped to make it fun and to encourage the child to get his fingers messy. Leave the paint thick so that it makes a textured surface when dry.

We tried a potter's wheel and feel this would have been a good medium except that the wheel we used was too heavy for the children to operate easily.

We proceeded with materials in accord with developmental sequence for normal children. Success seemed to depend on the creativity of the teacher in devising a great number of ways to teach very simple skills combined with enthusiasm to motivate the children. Our best results were obtained when there was an adult to work with each child. She put his hands through the necessary motions, withdrawing gradually as his skill increased. Volunteers from the community did this well. We found college students did exceptionally fine work in this area.

Our children with hand dysfunction had a special need for many related activities to develop the same hand skill. The addition of a few drops of perfume, spice, or flavoring extracts give variety to materials for the totally blind in the same way that colors make materials more interesting for the sighted. This also provides sense training.

Step by step training is essential. The teacher needs to break down the task into very small steps and structure her teaching to the child's individual capacity.

MUSIC AND RHYTHM: The first year of the program, music was informal listening or group singing, except for Child D who received piano lessons at home and was given practice sessions in the evening using one of the practice rooms in the school building. The nine children who had been a part of the special class in the school previously had had group vocal instruction.

The last two years of the program all the children but three, who were unable to function in the group, were integrated into the regular school classes where they could function best. Child I was taught by a volunteer (who was a music student) to play a little on the autoharp and piano. Child N received piano lessons from the school music teacher.

The children in this program like music well (except Child O) and had listened since infancy to records and tapes. We felt this area need not be stressed, but left for informal enjoyment with the above exceptions. In fact it often served as a reward. It was also a most useful device for getting cooperation from some children. They would obey a sung command or invitation much more readily than the spoken word.

Rhythm on a formal basis was a part of the physical education program and is described in that section.

HEALTH AND PERSONAL HYGIENE: Health and personal hygiene was a fundamental part of the daily program and was taught in conjunction with all activities. This was a continuation of the program used in the total school living situation and had been worked out largely by the dormitory staff. During the summer months several of these experienced counselors worked with the children while program staff members were on vacation, and provided instruction to both new staff members and children.

Appendix C, pages C-2 through C-17, show the detailed step-by-step approach used in teaching personal hygiene skills.

Classroom instruction in health and safety was largely incidental and given when the appropriate occasion arose. A number of records on manners and health and safety had been purchased and were played often for the children. "Basic

Songs for Exceptional Children" (Concept Records) "Group One: Cleanliness" was most useful. The manual which accompanies the record has descriptions of motions used while singing. The "Bath Song" is good for teaching body parts, and the song on "Why Do We Wash Our Hands?" leads naturally into a discussion of germs and sanitation. There is even one for tooth brushing.

After the above records had been used in the classroom they were taken to the living quarters and played frequently. Further instruction was given as interest or need indicated.

Frequent field trips within the city and to mountains and seashore provided opportunity to practice safety precautions. Special care was taken to orient the children to sounds, odors, and guidelines or landmarks in these varied situations, and to teach them to explore safely. For example, before we visited a plant where PrestoLogs were made we talked about conditions we expected to find and what each child could expect to do and see. During the trip through the plant the staff member responsible for a particular child, would describe the operation and help him to hear, touch, and smell in the way best suited to his capability, but also explaining what would not be safe for him to do and why. As the children grew more experienced, they were allowed to explore "on their own" but were carefully watched. Often it was only necessary to call attention to some sound clue or landmark to enable them to continue moving about in a new area.

SOCIAL STUDIES AND SCIENCE: Social studies and science instruction was informal and made a part of daily living insofar as practical. However it served as the topic on which many of the field trips and language arts experiences were based. During the first year we followed the usual preschool and kindergarten level activities. (68) We celebrated holidays and stressed family, food, clothing, animals, and community helpers. The second and third years we learned what we could about our community and some of its early history, including a little on Indian life. One unit was built around the ocean and sea life because we had the opportunity to spend several days camping on the seacoast. Another unit on the forest and wood products included fresh water streams and rivers.

We felt justified in using this traditional subject matter of the early primary grades because these children need to have knowledge and experiences common to normal children of their age. Their way of acquiring it may be much slower and more concrete, but the background knowledge is necessary to being a part of society.

EATING: Meals were prepared in a central kitchen, and the children were served in a dining room in the same building. Demonstration Program staff supervised the children during

meals. The emphasis was slightly different from that for other pupils. Goals for each child were individual. Some children ate only strained foods in the beginning, and did not know how to drink from a cup. Our approach was the gradual introduction of new foods, geared to toleration level. Insofar as possible the same staff member helped the same children at the same meals so that consistency was maintained. Table manners were introduced according to the stage in development. For one child finger feeding was deemed acceptable, even desirable; for another the use of the spoon and fork was demanded. All children were urged to eat a variety of foods, as many tended to prefer only one or two foods. Frequently the device was used of withholding the desired food until one, two, or three bites of a disliked food was eaten. Diet needs were observed when necessary. Table conversation was encouraged, with a staff member often leading the conversation and guiding it.

Food was also provided in the residence for the children to help prepare, serve, and eat snacks, special occasion meals, and for parties. Each day one or two children helped prepare some type of food to illustrate a lesson in progress, treat invited guests, and/or to provide an evening snack for the entire group.

During the first quarter of the program, the older children had gone shopping on several different occasions to buy needed utensils for cooking. A part of the cooking lesson was identification of utensil and choice of the proper one for the task at hand. The children also helped in washing dishes and kitchen clean up, including helping care for the feeding of pets, and cleaning of the pet animal's dishes.

For the few children who could not return to their homes during short vacations, the meals for them and the staff member caring for them were prepared and eaten in the residence.

An unusual amount of time was spent on mobility and physical exercise. An absence of normal physical activity was seen in all of these children. They exhibited a tendency to sit or stand in one place, rocking, twirling or engaging in other purposeless activity. Two of them were unable to walk on entry into the program, and another of the younger children had a problem with balance.

Children were taught movement patterns, first through passive exercise as staff members moved parts of their bodies through patterns of movement, and then encouraged the children to move themselves in this same pattern. Progress was very slow, and groups of volunteers helped the staff by assisting these children to acquire movement patterns. Games were played and candy rewards were given for varying amounts of movement, depending on the level of function of the child.

In some cases, following a moving sound was more effective. Later rhythm records and activity records were utilized.

Mat work, walking, swinging, climbing and the use of playground equipment, swimming, and the development of skills involving both big and fine muscle activity were outlined for each child in an individual program. Those children most in need were given twenty to thirty minutes individual instruction two or three times per day.

To vary the program, the children were frequently taken to one of two public park playground areas which were adjacent to the school campus. Here equipment was similar, but enough different to stimulate interest. Some social action with normal sighted children was also experienced.

In these activities a gradual approach to the acquisition of strength and skill was necessary. The first summer many of the children were able to tolerate no more than a wading pool; they had to be transported to the gymnasium in wagons or carried, and had to be helped to walk and climb into the small pools. Advantage was taken of each gain made until by the end of the program all were able to walk for some distance, and all were able to go into the large swimming pool, although only part of them had learned to swim. There is nothing new in this approach except that great care was used to lead the child at his own rate of progress, and at no time were any two children expected to progress at the same rate.

By the second summer the children were able to take quite long walks; the older ones could go on back-packing hikes along mountain roads when supervised. Swimming in mountain lakes and streams became fun, and they enjoyed boating. Coordination and strength had improved in most of the children. This, again, is normal progress. It is possible to attain some level of achievement with severely multi-handicapped blind children.

Sensory training was strongly emphasized also. The child was exposed to individual and competitive sounds to help him identify and distinguish between the sound patterns of ordinary living. Tactile stimulation and exploration were greatly encouraged, and a basic inventory of tastes, odors, and forms was used in sharpening the child's discriminatory faculties.

Our methods of sensory training departed from the traditional methods used with the blind in only a few ways. We encouraged the children to go barefoot in warm buildings, and outside in summer. We encouraged them to get dirty and play in and with many materials. This made more work for the staff, but gave the children the experiences and

stimulation they needed. At first the children resisted getting sticky or messy. For example, we made tomato juice, then catsup, one of their favorite foods. There was much resistance to getting hands into the tomato pulp and juice, but repeated experiences became fun. We did try to provide only experiences which had real meaning for living, non-artificial situations. We felt that peeling onions to learn to peel onions was not the way to teach; but peeling onions to stuff a turkey had meaning and accomplished the learning in a more realistic way, especially when we could invite pupil friends from another class to enjoy roast turkey with us.

The second year a teacher trained in the Montessori Method was secured, and adapted this system to the multi-handicapped blind child. We were hampered by the time required to procure the equipment, but feel that this system has great merit, especially for young children. We also feel it most important to have a trained teacher and the authentic "didactic materials". Substitute materials do not provide the same teaching as those produced by careful workmanship.

There are a number of books available about the Montessori Method and by Dr. Montessori herself. (112,113) Briefly, her method was designed to teach the total needs of the child. Children learn lessons of cleanliness, manners, some grace of action, something about proper diet and the preparation, serving and cleaning up after meals. They also become acquainted with animals and plants, and with manual arts. The didactic apparatus gives the children both sensory and motor training, and leads into the basic symbolic skills of counting, reading and writing.

I would like to review briefly here her philosophy of the role of the teacher because it coincides so closely with our own, and is so intrinsically a part of our own. The teacher observes the pupil who must be free to manifest the individual facets of his own nature. Thus, each educational process is adapted to the needs of each individual child as revealed by himself. Also, the teacher must feel a deep respect for the man which lies dormant with the child. She must not feel that she must descend to a childish level, but rather awaken the future potential ability of the child and guide him to educate himself. The teacher makes every effort to make herself attractive in voice and manner, and offers the utmost in ego support to the child. She gives the child encouragement, comfort, love and respect.

Montessori's teaching departs from that of Pestalozzi, Froebel, and Rousseau in emphasizing that the child should learn for his own sake, to meet his own criterion of success; not for love of, or in fear of, the teacher. The message of the child is, "Help me to do it myself."

The teacher organizes the environment so that the child may have the necessary liberty to learn. She eliminates disorder, but allows that work which is orderly, complete liberty of manifestation. She keeps alive enthusiasm and guides the child without letting him feel her presence too much.

The teacher treats the child as she would like to be treated herself. She does not disturb him in his work, is ready to help in time of need, and is ready to rejoice in his success. She should be on terms of equality for the children so that there is mutual trust and confidence. (112)

STAFF-PUPIL RELATIONSHIP: In addition to the methods described above, another technique that was given special attention in this program was the individualizing of methods in building better relationships among both children and staff.

There could be no general criteria of behavior expected, as each child had different physiological problems and was at a different level of functioning both physically and socially. The only generalization made was to take the child where he was functioning, and to work toward helping him to show acceptable behavior and to develop ego strength.

Special attention was given to documenting those stimuli which tended to frustrate and irritate the child as well as those which made convenient rewards or reinforcing agents in the day to day situation. The child's reaction to peer stimulation and pressure was also recorded. At weekly scheduled meetings behavior problems and ways of modifying them were discussed.

As stated in our proposal we felt that tension in the teacher-counselor was highly contagious to this type of child. Therefore the staff tried, insofar as possible, to avoid incidents or curriculum materials which habitually built tension. Yet we were committed to a program of teaching children who had well established habits of resisting directed activity. Most of them resisted any activity at all except the non-purposive behavior commonly referred to as "blindisms" such as rocking, twirling, head rolling, thumping, etc.

An abundance of educational toys and materials was available, but unlike normal children, there was little spontaneous use of them. Each toy had to be "sold" to the child and generally many efforts were needed. The staff members found it frustrating to spend ten minutes showing and playing with a toy and child, only to have him drop it the moment the adult ceased to work.

It was suggested that good behavior be rewarded and bad behavior be ignored insofar as possible. However one child

could not be allowed to injure another nor to disrupt the entire group. Therefore the aggressor should be removed from the situation and given another activity, one he did not like so that he was not rewarded for aggressive behavior. If this was not effective he might have to be removed from the whole situation and put into a room by himself, or he might have to be physically restrained from his action. The way of modifying the behavior must be suited to the individual child, and it must also be within the tolerance of the adult. Many times a "wait-and-see" attitude will allow the children to settle a problem themselves.

INTEGRATION WITH SCHOOL PROGRAM: From the beginning an effort was made to incorporate some of the children into the regular classrooms for at least a portion of the day, providing staff to assist, or an exchange of time. The physical education teacher of the Demonstration Program spent an increasing number of hours per week teaching children from the regular school, and in return teachers from the regular school program taught children from the Demonstration Program.

Two children were admitted to the primary classes, but were later withdrawn for individual instruction in academic work when they made no progress in the regular classroom. They continued to attend the social studies program in the regular classroom, and many joint field trips were made.

The second year of the program, we combined the regular school staff of the special class with a group of the older children, especially on field trips. This encouraged social interaction. The children had developed sufficiently socially so that this was possible. The addition of six children and three staff members enabled us to keep the high staff ratio needed, and made possible experience-learning situations benefiting both groups. Main emphasis was on outdoor education which included a three day camping experience at the beach, as well as many field trips. The children became familiar and quite good at helping gather wood for fires, cooking over open fires, and the use of public recreation facilities. They developed concepts including that of a dusty logging road, the cold, salt water of the ocean, sliding in a snow storm on Mt. Hood, and a motor boat ride and swim in the Columbia River. We averaged one day per week on all day excursion planned within a unit system. The difference for these children as compared with the normal child was that they needed many similar experiences in order to make a generalization. All of the staff worked on the same theme around the clock. A picnic planned for a field trip meant sandwiches for snack at the residence.

By the third year of the program, one child had shown such improvement that he moved into the regular dormitory to live, but continued to have individual academic instruction like the other children. Several more children shared music

classes with children in regular classes, both for part of the second year and all of the third year. Children who were able shared in all-school assemblies, special day celebrations, and recreation activities.

In the spring of the last year of the Program the children moved back to the dormitories to sleep. The girls, accompanied by a Demonstration Program staff member, lived as a unit within the girls' dormitory for two periods of the day - getting up in the morning and going to bed at night. They shared night coverage with the rest of the girls. Two boys, Child C and Child D became members of regular units in the boys' dormitory. Children A, I, and M remained in the infirmary at night. Classroom teachers also exchanged time in greater amounts than before.

We suggest that a training program is needed both for teachers and residence personnel designed especially for work with the multi-handicapped blind child, and that careful study be given the Montessori method. We also suggest that a screening program for applicants be developed, since factors of basic personality and attitude toward difficult children appear to be of great importance.

We feel that the demands made on personnel working with these children exceeds that made by typical children, and it would therefore seem that the eight hour working day imposes a considerable hardship. Also, that since the training and work required of teachers and residence personnel is similar, that hours, status and salary be equal.

Because staff cannot depend upon the support gained by a sense of accomplishment due to the slow gains made by the children, training in methodology and realistic expectations might compensate in part for the job dissatisfaction. Psychological support for one another learned in a training situation might allay anxiety inherent in working with multi-handicapped children.

We would suggest that thorough study be made of the factors relating to the problems of training and selecting staff for work with the multi-handicapped blind, and that a training course be offered, either in conjunction with a course for training in work with the visually impaired, or as a separate program.

RESULTS

Approximately six months before the end of the demonstration program appointments were arranged for the re-evaluation of the children in the departments of Pediatric Neurology and Medical Psychology. Forms filled out by the Department of Neurology were returned to us immediately after the examination was made, but those from the Department of Medical Psychology were not available to us until after the end of the program. We had requested this so that the staff members might not be influenced by ratings made on the pre-tests. Appendix B, pages B-22 to B-26 show the form which was used by the Department of Pediatric Neurology and furnished by us. Appendix D contains copies of the report of each child's psychological evaluation. The full report is included because it contains the observations of the child's behavior by the examining psychologist, and describes in detail reactions on some of the test items. They are included in the child's record in Appendix D.

Evaluation of the children's progress had been made at nine week intervals throughout the program. Also four times per year the children were allowed to vacation at their homes while staff members made more detailed evaluations and plans. Summaries of these materials and check sheets are shown in Appendix D.

Two weeks before the close of the program the children were sent home and the entire staff spent the time evaluating each individual child and the program as a whole. Members of the regular school staff such as the Director of Dormitories, the School Nurse, and the Principal of the School, were able to join in some of the discussions of a general nature. The sessions were taped and later transcribed and form the basis of the following discussion of results.

Appendix D contains a summary of developmental history provided by parents and/or social workers, medical findings, progress as determined by staff records, and a copy of the psychologist's evaluation, and check lists* for each child. Statements made in this section are based upon these facts. For children N,G,M,O,B,C,A,E, and F an explanation of a simple conditioning experiment and charts of their progress are in Appendix E.

* Because these check lists were developed during the program, entries are taken from the daily log and reports of teachers and counselors. Exact dates were often not available. Listed under May, 1967, were items from staff member's evaluations at the end of the project.

PLACEMENT AT END OF DEMONSTRATION PROGRAM: Of the fifteen children who participated in the Demonstration Program, one, Child L, left the Oregon State School for the Blind when his family moved in September, 1966. He is enrolled in Public School where he is doing satisfactory work.

Two other children left the program before May 31, 1967. Child F returned to his home on our recommendation after consultation with the University of Oregon Medical School departments of Pediatric Neurology and Medical Psychology. Child I was transferred to the Fairview Hospital and Training Center, an institution for the mentally retarded.

At the close of the program, one child, A, was returned to Fairview Hospital and Training Center where he had been before the beginning of the program. The parents of Child O decided on the employment of a home teacher. Children C, D, E, H, J, and K were placed in a special class in the School for the Blind. Children B and N were put in the kindergarten class with other incoming pupils, and children G and M were enrolled in a primary class with a modified program.

EVALUATION OF THE SCHOOL-RESIDENTIAL PROGRAM: The overall objective of this demonstration program was to design a therapeutic program for children who had experienced deprivation in the areas of concept formation, sensory input, physical development, and social interaction. Study of the developmental histories of the children shows that, with the exception of two children, L and M, gross abnormalities of development had been present since infancy. L and M had experienced traumatic injury to the brain in childhood. The children's rejection from school classes was evidence that they continued to display severe social and behavioral defects as well as learning disabilities.

The effectiveness of the program is apparent in the detailed materials on each child contained in Appendix D, and to a lesser extent in Appendix E. All the children made some improvement except F. The kind of improvement varied according to the individual child, as did the amount. This program was not designed to prove that this was the best method which would bring about improvement, but to demonstrate that these children with multi-handicaps could improve when subjected to the program of experiences described in the section on methods.

TYPES OF CHILDREN WHO BENEFITED: In our proposal we had stated that one of the purposes of this program would be to identify those children who could profit from the program described. Child N made the greatest gain, as recorded both on the psychological evaluation and from the staff member's records. Study of his developmental history points to a child deprived of experiences and overprotected, but

without gross neurological impairment. He was one of the youngest of the children, had not been enrolled in other educational programs, had no overt emotional problem other than fear of new situations, and had developed language for communication. He could not walk, feed himself or eat table foods, and had no self-care skills. The graph in Appendix E, page 11, shows the rate at which he learned a simple conditioned response.

Child L also had needed the protection of a flexible, individualized, non-demanding program during the time he has recovered from massive brain surgery. How much his progress was the result of natural recovery and how much had resulted from the stimulation of the program could not be determined. He made good progress and is now doing well in public school. Study of his progress in Appendix D, indicates that in a regular public school program he might have experienced failure during this time, or have been denied schooling. There is need for a place for a child during this time. This program filled that need.

Children who exhibited patterns of withdrawal from social interaction benefited from the smaller group and from staff members' encouragement. C, who had not taken part in group classroom activity, gradually became a participant. E, who had bit her arm constantly as she sat in a spot apart from others, began to join the group voluntarily, and her arm healed. Children C, H, J, and K showed an increase in social poise noted by the psychologist. (See Appendix D)

Study of the developmental histories and early school experiences of these children indicate a need for a very early program of support for parents and the teaching of both parents and children how to develop self-care skills and attitudes that foster learning. Many concrete experiences must precede meaningful reading, writing, and number lessons. We found that the time required to give the concrete experiences left little time for classroom work.

GROUPING: Staff opinion was divided on whether children who display severe problems, should be grouped together. In general it was felt that Child N, who did not walk or eat well, but who was verbally competent, should not be grouped with disturbed, hyperactive children. We felt he needed contact with more normal children, but his lack of mobility and self-care skills caused his rejection from the normal situation.

On the other hand, to introduce a hyperactive child into a group of withdrawn, non-responding children brings about natural stimulation, and benefits the withdrawn child. It also seems to calm the overactive child. Here again staff interaction with the children to help guide the action is vital.

We felt chronological age up to the age of puberty was less important than functional age. A number of the children in this program reached the age of beginning adolescence during the three year period. Personality and interest changes were noticeable. At least a portion of their program needed to be adjusted. For example, Child O became interested in popular music. At the beginning of the program she would not tolerate music of any kind. Whether this was the result of development of toleration or a factor connected with age is not known. She did not like music of kindergarten style, but she enjoyed dancing rhythmically and singing popular tunes. All the adolescent children seemed to enjoy popular music, but the preadolescent ones did not, except for Child N who enjoyed all kinds of music.

We felt it was satisfactory to have both boys and girls in the same residence up to the age of puberty. After that interests were different even though the children might be able to function intellectually only at the first grade level.

We came to feel that fifteen children of this type are too many for one unit. Five or six would have been better. We found that for effective instruction in self-care skills, arts and crafts, or academics there must be one teacher for each child to get good results. After the child has acquired some independent work habits and basic skills, small groups can function well, but our plans for one teacher-counselor to two or three children cut the effectiveness of the program greatly.

Social skills are also desirable, and a part of each day should be spent in a group, even though the children do not interact as yet. Our weekly field trips were taken as a group, and even those children who seemed to react very little to others, displayed pleasure in participation by the end of the three year period. There had been great resistance by most of the children in the beginning, but gradually the attitude changed and interest developed. This was probably the result of the staff members' consistent enthusiastic support of these learning experiences. They set an example of levely interaction with each other as well as with the children. An adult for each child is necessary for teaching in the field also.

HOUSING: We came to feel that the residence we occupied was too crowded. The first year when the children were quite inactive and did not socialize well, was difficult, but with increasing activity of the children it became more and more difficult. We spent one summer living in a wing of one of the dormitories. Opinion was divided on the part of staff as to its desirability. Some preferred the "home" atmosphere of the residence, some the convenience of extra bathroom facilities. A "Children's House" as described by Dr. Montessori in her Handbook (132) would be ideal if combined with

building codes for residential facilities. Bedroom units would need to be added.

TIME IN SCHOOL: All of us felt that a twelve month program was of great value to the children. For those children who could not return home for vacations it offered the security of home. For other children a week, ten days, or even two weeks seemed right. By that time they were eager to return to school, and they did not forget the skills they had acquired as they did when home for a long vacation. All the parents but two expressed approval of school during the summer. Many of the children asked why they could not attend school the summer after the program ended. In summer we spent additional time on outdoor education and swimming.

The entry of the children into the Demonstration Program situation should be even more gradual than we used. It would be well to start with no more than two children and add one at a time as the children become comfortable in the new setting. It would also be desirable if the staff members working directly with the child might visit in the homes of the children, as well as parents visiting the school before the child comes. Where it is possible, it would be wise to have facilities so that the child and his family might live on the school grounds for a short time so that they could all get acquainted with the school and its policies, and the school staff observe the interaction of child and family.

PARENT INVOLVEMENT: The weekly or bi-weekly parent conference seemed good to us; we felt that in most cases we formed good relationships with the parents. At the close of the program the parents were asked if they were satisfied with this arrangement, and if they could suggest improvement. Most of them felt this arrangement was satisfactory. Some staff members who were not scheduled to be on duty at the time the parents came, would have liked to have been included. We felt that more visits in the children's homes would be helpful.

RECORDS: We believe that a revision of the developmental history form would be advisable. (See Appendix B) There were many additional questions to which we would have liked answers, and some which were not useful to us. A team representing all the disciplines involved in assessing the child, if given the opportunity, could write a much better one. Our whole system of records needed improvement. We were aware of this problem, and tried a number of systems. At one time regular "time-off-the-job" was scheduled for writing records, but little improvement resulted. Various check lists were tried. Appendix C contains those adapted and developed from several sources. These need further refinement and improvement. We are also aware that we need

special forms for medical and psychological reports, but that these will need to be developed by professional experts.

EDUCATIONAL METHODS: We felt that our method of teaching concepts by using many related, real experiences was good. However, it takes much time. The children need to begin a program of stimulation, exercise, and participation in experiences as soon as possible. It should be systematic and correlated with the developmental progress of each individual child; also a cumulative record that goes with the child should be kept. In that way the teacher-counselor need not use time for a skill or experience that is already familiar.

We also feel we have made improvement in the eating habits of the children although much remains to be done in improving their manners. Child A and Child N who were on strained foods, now eat modified table foods and feed themselves. One of our cooks observed that the children in the Demonstration Program eat a greater variety of foods than formerly; that they have developed good appetites, especially for meat. They are eager for and enjoy their food. The parents, also, have commented that their children have dropped their "picky" habits in many cases.

In building strength and mobility we also feel the children have improved. Two children, A and N, who could not walk, now walk quite well. They can both go up and down stairs if there is a railing. One climbs the ladder and goes down the big playground slide. Three of the children can swim the width of the pool unassisted. Some can roller skate. Most of them made a three mile hike at Silver Creek State Park over mountain trail. Two children, E and F, did not improve. Both have cerebral palsy, but no conclusion can be made because we have no control group, and many variables need to be considered.

Most of the children have learned to get from building to building on the campus very well. Children H and J continue to have difficulty. If there are no distractions, or if they have not been given verbal reminders just prior to walking from one building to another, they appear to get there quite well. It would seem that they have established an unconscious habit pattern; that any conscious interference results in confusion.

Sensory training has been a part of all other experiences. We feel strongly that it should be begun as young as possible and plays a most important role in the development of the blind child, whether or not he has additional handicaps. Some of the children with central nervous system damage seem to be less aware of sensory cues than other children. We found it necessary to guard them carefully from hot things, as they did not draw back as would be expected in the normal

child. These children also tend to giggle when hurt or ill, sounding silly instead of hurt. When badly hurt they cry.

Adaptations of the Montessori method seem well suited to young children that are blind, both in materials and approach.

As stressed in the description of the method we used, and in summarizing that of Montessori, the attitude of the parent, the teacher, and the child is all important. We feel we were able to modify the attitudes of these children by using the methods discussed in this paper.

STAFF SELECTION AND TRAINING: Not listed in the Proposal as an objective, nonetheless, findings concerning problems of selection and training of staff members have been of great importance and should, we believe, be reported.

The school had had previous experience in recruiting teachers and counselors to work with mult-handicapped blind children within the regular school setting. The Demonstration Program departed from established schedules and customs in an effort to develop a personal relationship between the child and the teacher-counselor, and to give the child the security of a consistent program of discipline and instruction carried out by an understanding, supportive adult in the residential setting.

Immediately it became evident that the child must adjust to all members of the staff, even though he spent more time with some than others. The five-day week and eight-hour day meant that the child had to adjust to one person in the morning, another in the evening, even though this individual might assist or teach during the middle of the day. Any idea of limiting the child's relationship was quite unrealistic.

To try to develop a consistent attitude on the part of all the staff, meetings were held in which methods were discussed and defined, and written copies of which were made available in the child's file. However, each staff member brought to the job his or her own personality and made interpretation of both discussions and written procedures.

Since no background of training had been experienced, trial-and-error processes occurred. Also, since these children were so difficult to work with, and since each program must be highly individualized, only general attitudes and methods could be defined. Thus the program fell far short of its expectation of a highly consistent, supportive, positive attitude on the part of all staff members.

Many different approaches to this program were tried. At the beginning of the program, after consultation with the psychologist, staff bulletins were prepared and posted.

Activities were quite structured, the individual program being fitted into a larger whole of the general theme. Each staff person had relatively well defined duties to carry out with certain children at scheduled times.

At first this seemed to be satisfactory, then as staff members became better acquainted with each child's capabilities and problems, some seemed to desire greater freedom in making suggestions for activities and methods of working with each individual child. Except for group field trips and the physical exercise program, much greater freedom was given to staff members. Detailed bulletins were no longer posted. It seemed wise to permit the staff to become free to be creative in handling children's learning experiences. Meetings were called less frequently, although the regular evaluation and individual program sessions were continued at intervals.

Greater freedom in the less structured situation resulted in increased friction within the staff. Differing opinions on handling problems, especially those of discipline, were expressed, not only by members of the Demonstration Program staff, but by other personnel at the school.

Dissatisfaction among the staff members of the program grew. Added to that feeling was the frustration engendered by the slow progress of the children, the ego drain experienced by individual staff members, and fatigue attributed to noise and crowded conditions. As tension developed in the staff, the children sensed it and became increasingly difficult to manage.

To improve communications both within the Demonstration Program and with the regular school staff, a series of meetings was held with a psychologist serving as leader and consultant. Key members from all departments attended as well as the members of the Demonstration Program staff. Copies of the Demonstration Proposal were studied and goals and objectives discussed.

As the problems and difficulties of working with the severely handicapped child became better understood by all the school staff members, comments were made to the effect that personality plays an extremely important role in being able to accept their behavior.

The following September there was a new position on campus and the new Supervisor of Dormitories began assisting with the details of administration in the residence. There had also been some changes in personnel, those members most dissatisfied having resigned.

CONCLUSIONS, IMPLICATIONS, (AND RECOMMENDATIONS)

CONCLUSIONS: As we have stated earlier in this report, our data was such that our conclusions must be subjective. We had no control group of matched subjects. We do have ratings made by the University of Oregon Medical School Department of Medical Psychology, and the opinions of the staff who worked with this group of fifteen multi-handicapped blind children.

Based on the above kind of data, we feel we can make the following conclusions:

1. The school-residential program described in the section on Methods in this report is effective with a majority of blind, multi-handicapped children. It is based on teaching by using a systematic presentation of real experiences to build concepts, by continual participation in physical activity and exercise, and by sensory stimulation and the encouragement of social interaction.
2. The young blind child with deficits in sensory stimulation, physical activity, and experience, but without gross neurological defect, profits most from the type of program described in this paper.
3. Instruction in academics and skills is most effective on an individual basis; social groups should be kept small, not more than five to six children in a group. There should always be a least two staff members on duty so that if a child needs individual help, another member is present to supervise the group.
4. Grouping should be on functional ability, not on chronological age or kind of handicap. There is value in putting a hyperactive child with withdrawn children, and in having children of both sexes live in the same residence.
5. A twelve-month program with four or more vacations not exceeding two weeks in length is advantageous for the multi-handicapped blind child, who profits from being with his family. A child whose problems are aggravated by the home situation should remain at school. Parents should visit at school when this can be tolerated.
6. Weekly communication with parents is desirable, especially for the child who spends weekends at home. Conferences of a more formal nature to discuss long-range goals and objectives should be arranged every six months or more often as the individual case demands.

7. Cumulative records of the child's experiences, skills, history, and medical problems should be kept and made accessible to personnel working with the child. Suggested forms in Appendices B and C need further study and refinement, but are workable. They are detailed enough to provide specific information.
8. A multi-disciplinary team of consultants experienced with multi-handicapped blind children should be available to make periodic evaluations of the children, and to advise and support the staff in work with them.
9. A training program is needed for both teachers and residence personnel designed especially for work with the multi-handicapped blind child. The Montessori method seems well suited for young blind children, both in teacher training and in materials and approach.
10. A screening program for applicants for training in work with the multi-handicapped blind child needs to be developed. Factors of basic personality and attitude toward difficult children appear to be more important than age or experience.
11. Much further study is needed with the multi-handicapped blind child. A plan involving larger numbers of children over a period of a minimum of five years is indicated.

IMPLICATIONS: The methodology worked into the curriculum for the multi-handicapped blind child in the Demonstration Program discussed in this paper would seem to be applicable to all very young blind children, not only to those with additional handicaps. In fact, such a program might tend to prevent secondary problems such as educational retardation and emotional disturbance.

To implement such a program, additional staff would be required. This in turn, suggests a need for a screening program to be developed for applicants to such a program. Training courses for the multi-handicapped should be added to existing programs for teachers of the visually impaired, or separate programs should be instigated. This need applies to residence personnel as well as educators. Our use of the term teacher-counselor implies that the roles are of equal importance in the education of the child, which in turn implies equality of preparation, salary and status.

We also believe that this study suggests a program which continues throughout the year. Our summer program resulted in continual learning on the part of the children,

and eliminated the "summer lag" which had been manifest on previous records of educational progress. It also provided additional teaching time so beneficial for the slow learner.

Another implication for the continual program is the added problem to the child of enforced living in family situations which aggravate his problems. A continual program at the school provides the stable, secure environment needed for this child. This is not to imply that effort should be spared in trying to bring about an adjustment between the child and his family in this situation; but where this has not been achieved, regression on the part of the child can be prevented. Also, there are those few children who have no homes to which to go, and this provides a solution for them also.

Still another added point in favor of the elimination of the long vacation is the attitude expressed by the parents of the children in the Demonstration Program. While they seemed eager for the short vacations of a week or two, all but two expressed concern over providing an interesting program of activities for the long summer vacation. The children, too, expressed regret at separation from their friends and the staff, which seemed a most gratifying indication of social growth and awareness.

However, in spite of our feeling that the children benefitted greatly by the continual program, the staff, especially the teachers, felt the need of a long vacation, and of time to spend in additional study. This points toward the need for some adjustment in a program as demanding as working with the multi-handicapped blind child.

Because of the records kept on each child, it would appear that individual instruction in some academic areas is needed, and that it is also necessary in the teaching of skills such as tooth brushing, shoe tying, bed making, and other daily tasks. However, the Montessori method seemed apt for young children in a group, working individually, but also independently; the teacher can move from child to child to give assistance, or work with several children. Group work also was successful in this program in developing social skills, and in making field trips. This would imply a flexible program for each individual child providing the type of instruction needed for the particular task, but aiming toward group instruction as proficiency increases.

Indications are that children should be grouped according to functional ability, not chronological age or type of handicap, both in the living and academic situation. We believe that the attitude of staff is important in determining the attitude of the children toward one another, and that a break with traditional age groupings is needed.

This again implies that a training program is needed for all personnel working with multi-handicapped blind children.

Also indicated is the preparation of cumulative record forms which would go with the child into all areas of learning. Our experience in this area involved much trial testing of different forms, and we feel a great deal of further work is needed to develop satisfactory record forms. Our opinion was that a check list made at intervals supplemented by the detailed log and anecdotal records might serve best. The parents of the children showed interest in this, and felt that they would like to both read and to cooperate in making evaluations of their child's progress. Appendices B and C are offered as a starting suggestion. We realize that much further research by a multi-disciplinary team is needed.

In working with these children we became aware that our program of training must lead to some well defined end for these children when they had become adults and were no longer in a school. Some may be able to meet criteria demanded by the current labor market for the blind or by those for another area of handicap, but many will not. The children themselves express the need to have a goal; they often ask, "What can I do when I leave school?"

Parents are also greatly concerned about the future placement of their children. They, too, would like to see their children making a contribution to society, neither sitting at home nor committed to an institution. We believe they would assist in efforts to provide modification of some existing facility or provide a new one, if given leadership and assistance.

RECOMMENDATIONS: Based on the experience preceding this Demonstration Program and that experienced during the program, we recommend that further research be conducted on a larger number of blind children of pre-school age, beginning as soon as practicable after birth, to test the hypothesis that increased amounts of stimulation, physical exercise, concept building and social situations experienced by blind children will result in increased ability to function. We further suggest that the methodology worked into the suggested curriculum for the multi-handicapped blind child is applicable to all young blind children.

Because children need to be reared within their family, a pre-school program of home teaching would be desirable with the program of "instruction" similar to that of the home teacher for the physically handicapped. This would imply regularly scheduled home visits, with a specific work space available for the teacher and child. The teacher would be specially trained and work closely with a multi-disciplinary team of consultants through an organized program adjusted

for the maximum benefit of each individual case.

As the child develops, provision should be made for placement in groups of peers. The stimulation and motivation of normal sighted children functioning at the same level would probably be most beneficial. The continued help of the home teacher to provide support and stability seems desirable, but perhaps on a reduced time basis, depending on the need of either parents or child.

Parent involvement could take place in one of several ways:

- a. Teacher-parent conferences
- b. Parent observation sessions
- c. Planned tasks for the parents and/or siblings to carry out with the child between teach-child sessions.
- d. Parent group meetings

For those situations in the family where placement outside the home seems imperative, either a foster home or a small home-like residence on the School for the Blind campus might be utilized.

These suggestions are made after consultation with the preschool counselors in Oregon, upon whom we have relied for advice throughout our experience with blind children. Any additional program should supplement and augment existing services and be undertaken only with their approval.

In addition to providing a plus program for the very young blind child, some provision needs to be made for the multi-handicapped blind child who has not attained the level of function required to meet criteria demanded by the current labor market by the time he has reached the age of termination from school. Sheltered workshops are provided for many types of handicapped individuals, but few admit persons who have an additional handicap. Either a separate workshop is needed or a modification of an existing program to admit the multi-handicapped blind child.

Our experience leads us to believe that if they were provided with supervision and some help, both in the living and working situations, these children could be taught to do simple contract jobs selected according to their individual capacities. Training for these jobs could well be a part of the school program, if such a workshop was provided and the plans available to school personnel. This would provide motivation for the students themselves who constantly ask, "What can I do when I leave school?" A positive answer to this question during the school period would assure the child that he was a person of worth and dignity and that he might contribute to both his own support and to society.

Parents are also greatly concerned about the future of their children. They, too, would like to see their children making a contribution to society however small, neither sitting at home nor committed to an institution. We believe they would support an effort to study the practicality of such a venture, but are too few to do this without assistance.

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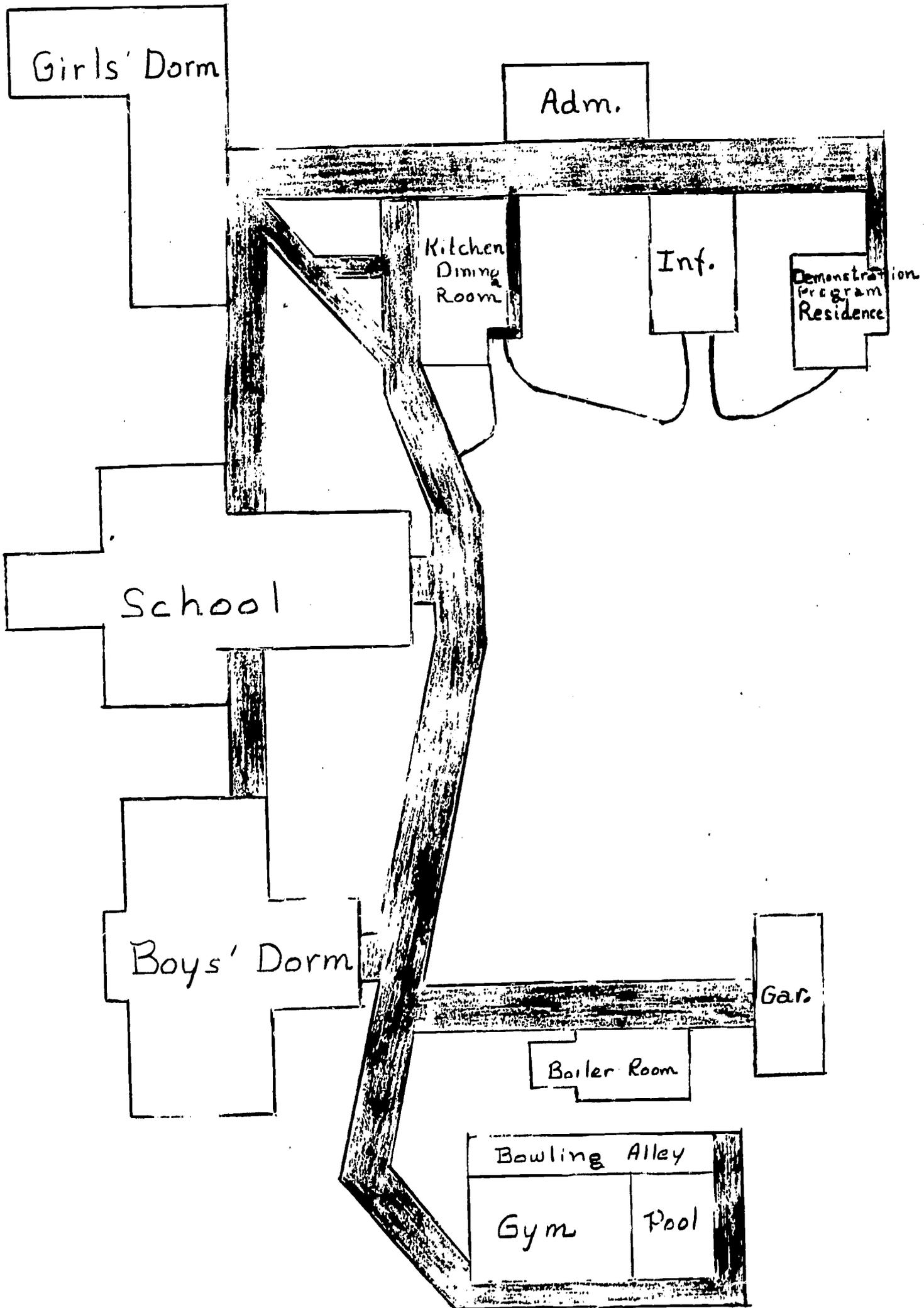
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OREGON STATE SCHOOL FOR THE BLIND
CAMPUS



A-1

OREGON STATE SCHOOL FOR THE BLIND
700 CHURCH STREET S.E.
SALEM, OREGON 97310

DEVELOPMENTAL HISTORY FORM

**THROUGH THE COOPERATION OF THE
INSTITUTES FOR THE ACHIEVEMENT OF HUMAN POTENTIAL**

1. NAME OF PATIENT _____
2. NAME OF INFORMANT _____
3. NAME OF INTERVIEWER _____
4. DATE OF INTERVIEW _____

ADMINISTRATIVE

1. PATIENT

- A. NAME _____
- B. ADDRESS _____
- C. TELEPHONE _____
- D. BIRTHDATE _____
- E. AGE TODAY _____
- F. SEX _____
- G. RACE _____
- H. RELIGION _____

2. PHYSICIAN

- A. NAME _____
- B. ADDRESS _____
- C. TELEPHONE NUMBER _____
- D. PHYSICIAN'S DIAGNOSIS _____

- E. PREVIOUS DIAGNOSIS _____

3. MOTHER

- A. NAME _____
- B. ADDRESS _____
- C. TELEPHONE NUMBER _____
- D. AGE _____
- E. EDUCATION _____
- F. OCCUPATION _____

4. FATHER

- A. NAME _____
- B. ADDRESS _____
- C. TELEPHONE NUMBER _____
- D. AGE _____
- E. EDUCATION _____
- F. OCCUPATION _____



FAMILIAL (PARENTS)

5. PATIENT AN ADOPTED CHILD YES _____ NO _____

IF YES, THROUGH WHAT AGENCY; AGE AT TIME OF ADOPTION:

6. FATHER'S HISTORY (NATURAL FATHER ONLY)

A. BIRTHDATE _____
B. HEIGHT _____
C. WEIGHT _____
D. HANDEDNESS _____
E. BLOOD TYPE _____
F. RH _____
G. PRESENT HEALTH _____
H. MEDICAL HISTORY _____

7. MOTHER'S HISTORY (NATURAL MOTHER ONLY)

A. BIRTHDATE _____
B. HEIGHT _____
C. WEIGHT _____
D. HANDEDNESS _____
E. BLOOD TYPE _____
F. RH _____
G. PRESENT HEALTH _____
H. MEDICAL HISTORY _____

FAMILIAL (SIBLINGS)

B. LIST OF PREGNANCIES

NOTE:

- (1) LIST ONLY PREGNANCIES IN WHICH PATIENT'S MOTHER IS THE NATURAL MOTHER.
- (2) LIST ALL PREGNANCIES IN ORDER--INCLUDING MISCARRIAGES.

		DATE OF BIRTH OR TERMINATION OF					
		<u>PREGNANCY</u>	<u>NAME</u>	<u>SEX</u>	<u>AGE</u>	<u>CONDITION</u>	<u>HANDEDNESS</u>
A.	1ST PREGNANCY						
B.	2ND	"					
C.	3RD	"					
D.	4TH	"					
E.	5TH	"					
F.	6TH	"					
G.	7TH	"					
H.	8TH	"					
I.	9TH	"					
J.	10TH	"					
K.	11TH	"					
L.	12TH	"					
M.	13TH	"					
N.	14TH	"					
O.	15TH	"					

9. IF THERE ARE ADDITIONAL CHILDREN WHO ARE ADOPTED OR LIVING IN HOME, LIST BELOW:

	<u>NAME</u>	<u>AGE</u>	<u>SEX</u>	<u>HEALTH</u>	<u>HANDEDNESS</u>
A.					
B.					
C.					
D.					

10. IF EITHER PARENT IS ACTUALLY THE STEPPARENT OF ANY OF THE CHILDREN, LIST THE NAMES OF SUCH CHILDREN

A.	
B.	
C.	
D.	

PRECONCEPTUAL

11. IS THE PATIENT ADOPTED?

_____ (YES OR NO)

12. IS THERE ANY BLOOD FACTOR (RH, ABO, ETC.) INCOMPATIBILITY BETWEEN NATURAL PARENTS?

IF YES, DESCRIBE:

_____ (YES OR NO)

13. WERE ANY OF THIS PATIENT'S SIBLINGS TRANSFUSED DURING THE FIRST WEEK OF LIFE?

IF YES, LIST BY NAME (CHRONOLOGICALLY).

_____ (YES OR NO)

14. IS THERE A BLOOD RELATIONSHIP BETWEEN PARENTS?

_____ (YES OR NO)

15. WAS THERE EVER A NUTRITIONAL DEFICIENCY IN EITHER PARENT?

IF YES, EXPLAIN.

_____ (YES OR NO)

16. WERE ANY SPECIAL MEDICATIONS TAKEN BY PARENTS DURING THE THREE YEARS PRIOR TO PREGNANCY?

IF YES, EXPLAIN.

_____ (YES OR NO)

17. WERE THERE ANY SERIOUS ILLNESSES IN EITHER PARENT PRIOR TO OR DURING PREGNANCY?

IF YES, EXPLAIN.

_____ (YES OR NO)

PRENATAL (MATERNAL)

LIST UNDER TRIMESTERS ANY SIGNIFICANT INFORMATION, SUCH AS INFECTIOUS DISEASE, SEVERE TRAUMA, ABNORMAL BLOOD PRESSURE, TOXEMIA, X-RAYS, MEDICATIONS, SPOTTING, EDEMA, COMMUNICABLE DISEASES, HEMORRHAGE, SURGERY, ETC., ADDICTION TO DRUGS OR ALCOHOL.

18. 1ST TRIMESTER

19. 2ND TRIMESTER

20. 3RD TRIMESTER

NATAL

21. DURATION OF PREGNANCY _____ MONTHS' _____ WEEKS _____ DAYS

22. DATE OF BIRTH _____

23. HOSPITAL OR HOME _____

IF HOSPITAL:

NAME _____

ADDRESS _____

24. TYPE OF LABOUR

A. SPONTANEOUS? _____ (YES OR NO)

B. DIFFICULT? _____ (YES OR NO)

DESCRIBE:

C. PRECIPITOUS? (UNDER TWO HOURS), _____ (YES OR NO)

DESCRIBE:

D. PROTRACTED? (OVER EIGHTEEN HOURS), _____ (YES OR NO)

DESCRIBE:

E. INDUCED? _____ (YES OR NO)

DESCRIBE HOW (FORCEPS, MEDICATION, ETC.):

DESCRIBE WHY:

F. DELAYED? _____ (YES OR NO)

DESCRIBE HOW:

DESCRIBE WHY:

G. CEASARIAN SECTION? _____ (YES OR NO)

DESCRIBE WHY:

H. EPISIOTOMY? _____ (YES OR NO)

DESCRIBE WHY:

I. LENGTH OF LABOUR? _____ HOURS

NATAL (CONTINUED)

24. TYPE OF LABOUR (CONTINUED)

J. ANESTHESIA? _____ (YES OR NO)
DESCRIBE TYPE: GENERAL, LOCAL, HYPNOSIS, SPINAL, NONE.

K. PRESENTATION (VERTEX, FACE, TRANSVERSE, BREECH, FOOTLING, ETC.)
DESCRIBE:

L. BIRTH COMPLICATIONS (PLACENTA PREVIA, CORD STRANGULATION, ANOMALIES, MULTIPLE BIRTH, ETC.)
DESCRIBE:

M. NAME OF OBSTETRICIAN _____
ADDRESS _____

N. REMARKS:



IMMEDIATELY POST NATAL (THE FIRST DAY)

25. WAS BABY BELIEVED TO BE WELL AT BIRTH? _____ (YES OR NO)

26. ANY STATEMENT MADE TO PARENTS BY HOSPITAL STAFF:

27. WHEN WAS THE FIRST TIME EITHER PARENT SAW THE BABY? _____ DAY

28. WAS THE BIRTH CRY IMMEDIATE? _____ (YES OR NO)
IF THE BIRTH CRY WAS DELAYED--HOW LONG? _____ MINUTES

29. WAS THE BABY CYANOTIC? _____ (YES OR NO)

30. WAS THE BABY JAUNDICED? _____ (YES OR NO)

31. WAS THE BABY PALE? _____ (YES OR NO)

32. WHAT WAS THE BABY'S APGAR RATING? _____ POINTS

33. WAS THE BABY GIVEN OXYGEN? _____ (YES OR NO)

34. WAS THE BABY GIVEN TRANSFUSIONS? _____ (YES OR NO)
DESCRIBE:

35. WAS THE BABY TUBE-FED? _____ (YES OR NO)
DESCRIBE:

36. WAS THE BABY GIVEN SURGERY? _____ (YES OR NO)
DESCRIBE:

37. DID THE BABY HAVE SEIZURES OR TREMORS? WHICH? _____ (YES OR NO)
DESCRIBE:

IMMEDIATELY POST NATAL (THE FIRST DAY)

(CONTINUED)

38. WAS THE BABY IN AN INCUBATOR OR ISOLETTE?
IF SO, WHICH AND FOR HOW LONG?

_____ (YES OR NO)
_____ DAYS

39. CONGENITAL ANOMALIES OR DEFORMITIES
DESCRIBE:

_____ (YES OR NO)

POST NATAL HISTORY (THE FIRST MONTH OF LIFE)

40. ON WHICH DAY OF LIFE WAS BABY DISCHARGED FROM HOSPITAL? _____ DAY
41. DID BABY MOVE HIS ARMS AND LEGS IN A WAY WHICH APPEARED TO BE NORMAL
IF YES, EXPLAIN. _____ (YES OR NO)
42. DID BABY'S CRY SOUND NORMAL?
IF YES, EXPLAIN. _____ (YES OR NO)
43. DID BABY HAVE GRASP REFLEX?
IF YES, EXPLAIN. _____ (YES OR NO)
44. DID BABY HAVE A LIGHT REFLEX?
IF YES, EXPLAIN. _____ (YES OR NO)
45. DID BABY HAVE A STARTLE REFLEX?
IF YES, EXPLAIN. _____ (YES OR NO)
46. DID BABY HAVE SKIN REFLEX?
IF YES, EXPLAIN. _____ (YES OR NO)

POST NATAL HISTORY (THE FIRST MONTH OF LIFE)

(CONTINUED)

47. DID BABY SUCH AND SWALLOW NORMALLY?
IF YES, EXPLAIN.

_____ (YES OR NO)

48. DID BABY HAVE SEIZURES, TREMORS, ETC.?
IF YES, EXPLAIN.

_____ (YES OR NO)

49. WAS BABY 'TOO GOOD'?
IF YES, EXPLAIN.

_____ (YES OR NO)

50. WAS BABY 'TOO IRRITABLE'?
IF YES, EXPLAIN.

_____ (YES OR NO)

51. DID THE BABY HAVE ANY ILLNESSES?
IF YES, EXPLAIN.

_____ (YES OR NO)

52. WERE ANY SPECIAL TESTS, TREATMENTS OR SURGERY GIVEN BABY?
IF YES, EXPLAIN

_____ (YES OR NO)

DEVELOPMENTAL HISTORY BY PARENTS' REPORT

3.

NOTE: THIS ADAPTATION OF THE DOMAN-DEACATO DEVELOPMENTAL PROFILE IS TO SERVE STRICTLY AS A PARENTS' STATEMENT OF THE DEVELOPMENTAL HISTORY.

THE PARENTS WILL PROVIDE AGES OF PATIENT AT ACCOMPLISHMENT OF EACH OF THE FOLLOWING FUNCTIONS, AND THOSE AGES WILL BE WRITTEN IN THE APPROPRIATE BLOCKS. (THE INTERVIEWER SHOULD DESCRIBE FUNCTIONS WHICH ARE NOT CLEAR, BUT SHOULD NOT TEST AT THIS TIME.)

ALL HIGHER FUNCTIONS NOT YET ACCOMPLISHED BY PATIENT AS PER THE PARENTS' REPORT WILL BE CROSSED OUT BY THE INTERVIEWER.

IF THE PARENT IS NOT AWARE AS TO WHETHER OR NOT A SPECIFIC FUNCTION TOOK PLACE, INDICATE AS 'UNKNOWN' IN APPROPRIATE BLOCK.

IF PARENT KNOWS THAT A SPECIFIC FUNCTION NEVER TOOK PLACE, INDICATE AS 'NEVER' IN APPROPRIATE BLOCK.

MOBILITY	LANGUAGE	MANUAL COMPETENCE	STEREOPSIS		VISUAL COMPETENCE	AUDITORY COMPETENCE	TACTILE COMPETENCE
Using a leg in a skilled role which is consistent with the dominant hemisphere	Complete vocabulary and proper sentence structure	Using a hand to write which is consistent with the dominant hemisphere			Reading words using a dominant eye consistent with the dominant hemisphere	Understanding of complete vocabulary and proper sentences with proper ear	Tactile identification of objects using a hand consistent with hemispheric dominance
Walking and running in complete cross pattern	2000 words of language and short sentences	Bimanual function with one hand in a dominant role			Identification of visual symbols and letters within experience	Understanding of 2000 words and simple sentences	Description of objects by tactile means
Walking with arms freed from the primary balance role	10 to 25 words of language and two word couplets	Cortical opposition bilaterally and simultaneously			Differentiation of similar but unlike simple visual symbols	Understanding of 10 to 25 words and two word couplets	Tactile differentiation of similar but unlike objects
Walking with arms used in a primary balance role most frequently at or above shoulder height	Two words of speech used spontaneously and meaningfully	Cortical opposition in either hand			Convergence of vision resulting in simple depth perception	Understanding of two words of speech	Tactile understanding of the third dimension in objects which appear to be flat
Creeping on hands and knees, culminating in cross pattern creeping	Creation of meaningful sounds	Prehensile grasp			Appreciation of detail within a configuration	Appreciation of meaningful sounds	Appreciation of gustic sensation
Crawling in the prone position culminating in cross pattern crawling	Vital crying in response to threats to life	Vital release			Outline perception	Vital response to threatening sounds	Perception of vital sensation
Movement of arms and legs without bodily movement	Birth cry and crying	Grasp reflex			Light reflex	Startle reflex	Babinski reflex

B. IF PATIENT DEVELOPED NORMALLY, AND PRESENT PROBLEM WAS INCURRED LATER IN LIFE, E.G., AUTO ACCIDENT, ENCEPHALITIS, ETC., COMPLETE FORM AND SPECIFY AGE AT TIME OF ACCIDENT OR ILLNESS. _____ MONTHS

PARENTS' STATEMENT

54. A. WHO FIRST DECIDED THIS CHILD HAD A PROBLEM?

AT WHAT AGE?

WHY?

B. CHILD'S PRESENT PROBLEMS:

C. ANY OTHER STATEMENTS PARENTS WOULD LIKE TO MAKE:

HOSPITALIZATIONS

LIST ALL HOSPITALIZATIONS CHRONOLOGICALLY

55. A. DATE _____
LENGTH OF STAY _____
HOSPITAL _____
ADDRESS _____
REASON _____

TREATMENT _____
DOCTOR _____
RESULT _____

B. DATE _____
LENGTH OF STAY _____
HOSPITAL _____
ADDRESS _____
REASON _____

TREATMENT _____
DOCTOR _____
RESULT _____

C. DATE _____
LENGTH OF STAY _____
HOSPITAL _____
ADDRESS _____
REASON _____

TREATMENT _____
DOCTOR _____
RESULT _____



OTHER REHABILITATION CENTERS OR PHYSICIANS

LIST ALL ADMISSIONS (IN-PATIENT AND OUT-PATIENT) TO FACILITIES FOR REHABILITATION CARE
AND LIST THEM CHRONOLOGICALLY

56. A. INSTITUTION OR PHYSICIAN _____
ADDRESS _____
HOW OFTEN SEEN _____
OVER WHAT PERIOD OF TIME _____
DIAGNOSIS _____
TREATMENT _____

RESULTS _____

PROGNOSIS _____

B. INSTITUTION OR PHYSICIAN _____
ADDRESS _____
HOW OFTEN SEEN _____
OVER WHAT PERIOD OF TIME _____
DIAGNOSIS _____
TREATMENT _____

RESULTS _____

PROGNOSIS _____

C. INSTITUTION OR PHYSICIAN _____
ADDRESS _____
HOW OFTEN SEEN _____
OVER WHAT PERIOD OF TIME _____
DIAGNOSIS _____
TREATMENT _____

RESULTS _____

PROGNOSIS _____



OTHER FACTS

57. **HIRSUTISM**

DOES PATIENT HAVE EXCESSIVE HAIR ON BACK, LIMBS, FACE, ETC.?

IF YES, EXPLAIN.

_____ (YES OR NO)

58. **PERSPIRATION**

REGARDING PATIENT'S SWEATING, ARE THERE UNUSUAL ODORS, UNUSUAL AREAS, EXCESSIVE OR INSUFFICIENT QUANTITIES, ETC.?

IF YES, EXPLAIN.

_____ (YES OR NO)

59. **SLEEP HABITS**

IS THERE ANYTHING UNUSUAL REGARDING SLEEP HABITS, E.G., LENGTH, ETC.?

IF YES, EXPLAIN.

_____ (YES OR NO)

60. **BEHAVIOR**

IS THERE ANYTHING UNUSUAL REGARDING BEHAVIOR PATTERNS?

IF YES, EXPLAIN.

_____ (YES OR NO)

61. **APPEARANCE**

IS THERE ANYTHING UNUSUAL REGARDING PATIENT'S APPEARANCE, I.E., ANOMALIES, FLACCIDITY, SPASTICITY, RIGIDITY, CONTRACTURES, DEFORMITIES, ETC.?

IF YES, EXPLAIN.

_____ (YES OR NO)

SEIZURES

62. A. DOES HE HAVE, OR HAS HE EVER HAD, SEIZURES?

B. TYPES OF SEIZURES:

<u>TYPE</u>	<u>PRECIPITATING FACTORS</u>	<u>FREQUENCY</u>	<u>SEVERITY</u>	<u>DURATION</u>	<u>SEQUELAE</u>
(1) GRAND MAL					
(2) FOCAL (JACKSONIAN)					
(3) PETIT MAL					
(4) PSYCHOMOTOR					
(5) MYOCLONIC JERKS					
(6) AKINETIC					

C. OTHER. ALSO, IF CHILD HAS HAD SEIZURES, AND THEY HAVE NEVER BEEN SPECIFICALLY DIAGNOSED--DESCRIBE:

D. HISTORY OF ALL ANTI-CONVULSANTS

E. HAS THERE BEEN ANY INCIDENCE OF POST-ICTAL PARALYSIS?
IF SO, EXPLAIN.

EDUCATIONAL HISTORY

NOTE:

IF TRANSCRIPT, REPORT CARD, PROGRESS REPORT OR LETTER(S) FROM THE PATIENT'S SCHOOL EXIST--ATTACH COPIES TO THIS PAGE.

63.

A. HAS THE PATIENT ATTENDED A SCHOOL? _____ (YES OR NO)

IF YES, WHAT TYPE(S) OF SCHOOL(S): (LIST SCHOOLS CHECKING TYPE OF SCHOOL, LISTING THEM CHRONOLOGICALLY):

- (1) TYPE OF SCHOOL : _____ (REGULAR OR SPECIAL)
NAME OF SCHOOL : _____
ADDRESS : _____
NAME OF TEACHER : _____
ENROLLMENT : FROM _____ TO _____

- (2) TYPE OF SCHOOL : _____ (REGULAR OR SPECIAL)
NAME OF SCHOOL : _____
ADDRESS : _____
NAME OF TEACHER : _____
ENROLLMENT : FROM _____ TO _____

- (3) TYPE OF SCHOOL : _____ (REGULAR OR SPECIAL)
NAME OF SCHOOL : _____
ADDRESS : _____
NAME OF TEACHER : _____
ENROLLMENT : FROM _____ TO _____

B. IF SCHOOL IS GRADED, SPECIFY THE PRESENT OR MAXIMUM GRADE ACHIEVED: _____ GRADE

C. SPECIFY READING LEVEL ACHIEVED: _____ GRADE

D. SPECIFY ARITHMETIC LEVEL ACHIEVED: _____ GRADE

E. DESCRIBE MUSIC AWARENESS AND ABILITY:

F. COMMENTS:

PREVIOUS NEUROLOGICAL AND NEUROSURGICAL TESTING

NOTE:

LIST ALL SKULL X-RAYS, EEG'S, PNEUMOENCEPHALOGRAMS, BURR HOLES, CRANIOTOMY, ANGIOGRAMS, SPINAL TAPS, CHEMISTRIES, BRAIN SCANNING, BIOPSY AND PHYSICAL NEUROLOGICAL EXAMINATIONS, ETC.

64.

A. PHYSICIAN _____

INSTITUTION _____

ADDRESS _____

DATE _____

LIST TESTS:

RESULTS:

B. PHYSICIAN _____

INSTITUTION _____

ADDRESS _____

DATE _____

LIST TESTS:

RESULTS:

PREVIOUS PSYCHOLOGICAL TESTING

65 .

A. NAME OF CLINICIAN _____
INSTITUTION _____
ADDRESS _____
TYPE OF TEST _____
DATE _____
RESULT _____

B. NAME OF CLINICIAN _____
INSTITUTION _____
ADDRESS _____
TYPE OF TEST _____
DATE _____
RESULT _____

C. NAME OF CLINICIAN _____
INSTITUTION _____
ADDRESS _____
TYPE OF TEST _____
DATE _____
RESULT _____

D. NAME OF CLINICIAN _____
INSTITUTION _____
ADDRESS _____
TYPE OF TEST _____
DATE _____
RESULT _____

NEUROLOGICAL-NEUROSURGICAL EXAMINATION

66.

PART I. NEUROLOGICAL EXAMINATION

A. OBSERVATION OF BEHAVIOR AND AFFECT

B. GENERAL APPEARANCE

(1) APPEARS SICK

_____ (YES OR NO)

(2) CONGENITAL ABNORMALITY

_____ (YES OR NO)

(3) DEFORMITY (CONTRACTURES, ETC.)

_____ (YES OR NO)

(4) ATROPHY

_____ (YES OR NO)

(5) DYSTROPHY

_____ (YES OR NO)

(6) HYPERTROPHY

_____ (YES OR NO)

(7) SYMMETRICAL DEVELOPMENT

_____ (YES OR NO)

Pages B-22 to B-26 were filled out by the Department of Pediatric Neurology of the University of Oregon Medical School.

NEUROLOGICAL-NEUROSURGICAL EXAMINATION (CONTINUED)

PART I. NEUROLOGICAL EXAMINATION (CONTINUED)

B. GENERAL APPEARANCE (CONTINUED)

(8) NORMAL NUTRITIONAL STATE

_____ (YES OR NO)

(9) NORMAL STATION AND GAIT

_____ (YES OR NO)

C. GROSS MOTOR EVALUATION

(1) GENERAL AND SPECIAL MUSCLE TONE

(2) GENERAL AND SPECIAL MUSCLE COORDINATION

(3) SPECIFY THE PRESENCE AND SITE OF SPASTICITY, RIGIDITY AND FLACCIDITY

D. GROSS SENSORY EVALUATION

(1) LEVEL OF CONSCIOUSNESS

COMATOSE

_____ (YES OR NO)

STUPOROUS

_____ (YES OR NO)

OBTUNDED

_____ (YES OR NO)

ALERTNESS (NORMAL, EXCEPTIONAL)

_____ (YES OR NO)

(2) KINESTHETIC REFLEXES

NEUROLOGICAL-NEUROSURGICAL EXAMINATION (CONTINUED)

PART I. NEUROLOGICAL EXAMINATION (CONTINUED)

D. GROSS SENSORY EVALUATION (CONTINUED)

(3) PROPRIOCEPTIVE

(4) VIBRATORY

E. EVALUATION OF REFLEXES

(1) PATHOLOGICAL

(2) PHYSIOLOGICAL

F. EVALUATION OF CRANIAL NERVES

I.

II.

III.

IV.

NEUROLOGICAL-NEUROSURGICAL EXAMINATION (CONTINUED)

PART I. NEUROLOGICAL EXAMINATION (CONTINUED)

F. EVALUATION OF CRANIAL NERVES (CONTINUED)

V.

VI.

VII.

VIII.

IX.

X.

XI.

XII.

G. OTHER

H. SUMMARY

I. CONCLUSION

SUMMARY OF SIGNIFICANT FACTS

67.

A. POSSIBLE ETIOLOGICAL FACTORS

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

B. CONCLUSION

<u>LEVEL</u>	<u>DEGREE</u>	<u>EXTENT</u>	<u>RIGHT</u>	<u>LEFT</u>
CORTEC				
MIDBRAIN				
PONS				
MEDULLA-CORD				

C. REMARKS

INTRODUCTION TO APPENDIX C

The check lists in Appendix C were designed to give the teacher-counselor of the Demonstration Program at the Oregon State School for the Blind a detailed, step-by-step method of evaluation of skills in several areas. Many of the items were formulated by the staff of the school before the beginning of this particular program. The ratings can be made by the teacher-counselor or by the parents, or by both. After experimenting with many kinds of records, a check list seemed fastest and most accurate. While cumbersome in length, it seemed to us to be necessary to mark each small step. The multi-handicapped blind child progresses so slowly that sample techniques did not seem feasible at this point. As these check lists are incomplete and need to be further developed, refined and tested on a large number of children, sampling techniques may become practical. It may even be possible to use a computer for determining a profile of function on any child for any date. We regret that these were not developed before the beginning of the Demonstration Program so that we might have computed profiles for each of the children.

The ratings are easily made. If the child can perform the skill an X is placed in the appropriate space under the date on which the child is rated. All items are checked if there is change since the last rating. A check is made only if the rater has observed the described behavior, and if the description is typical of the child's usual behavior. Each item is considered separately and independently of all other items.

NAME _____

I. PERSONAL HYGIENE cont.

E. Care of Nose cont.

Child Can:

- 6. Put handkerchief in pocket
- 7. Get tissue from designated place
- 8. Get, use, and put away used tissue or handkerchief
- 9. Perform #8 quietly and quickly

F. TOILETING

Child Can:

- 1. Cooperate in sitting on toilet seat for 5 minutes
- 2. Cooperate in using toilet for b.m.
- 3. Cooperate in using toilet for urine (sitting)
- 4. Cooperate in using toilet for urine (standing)
- 5. Ask to use toilet
- 6. Pull clothing down to use toilet
- 7. Pull clothing up after use of toilet
- 8. Unfasten snap on clothing

Rated by:	Name	Title	Date									

NAME _____

III. PSYCHOLOGICAL ADJUSTMENT cont.

C. SOCIAL ADJUSTMENT cont.

Child:

- 68. Shows sex antagonism
- 69. Gives encouragement to others
- 70. Is beginning to select one or two intimate friends
- 71. Seeks praise for things well done
- 72. Is self-conscious
- 73. Knows right from wrong
- 74. Can finish task or project "in spite of" frustration

Rated by: _____

Name	Title	Date									



CONDITIONING EXPERIMENT

PROBLEM

At the time when the children's hearing was being evaluated several children could not be tested because they did not give an adequate response to the tone stimuli when it was presented. We knew from daily contact with these children that they could hear and did respond to verbal requests. Apparently there was a problem of the children not knowing what to do when the stimulus, a tone, was presented. It was decided to try a conditioning program to see if these pupils could learn to give the proper response to the tone stimulus.

A senior student in psychology at Willamette University undertook the task as a field study in experimental psychology. Another student served as his assistant.

OBJECTIVES

1. To get the child, at a verbal command, to place his hands and forearm on a table that was in front of him.
2. To raise the hand and arm when the tone stimulus was presented.

MATERIALS USED

1. Low chair for the child.
2. A low table in front of the child.
3. On this table and facing the child a board two feet square is placed in a vertical position. In the center of the board is a hole about one and one-half inches square. Through the hole an inclined trough is placed with its low end towards the pupil. The low end of the trough is blocked so that items placed in the trough will remain in it until removed by hand. The board and trough are placed so that the child can place his hand and arm on the table in front of the board and yet reach the trough without moving from the chair.
4. A code practice oscillator, such as is used in teaching radio operators the morse code, was used to produce the tone stimuli. The tone could be varied in pitch and volume.
5. A supply of M&M candies.
6. Record forms showing:
 - a. Name of pupil
 - b. Date
 - c. The number of the training session, i.e., first, second, etc.
 - d. Name of person or persons doing the training
 - e. Any unusual behavior on part of pupil during training session

- f. A place to note any uncontrollable stimuli, as noise outside of building.
- g. A space to record twenty-five presentations of the stimuli and to note whether the response of pupil was immediate or delayed.

METHOD OF PROCEDURE

1. Child was placed in chair in front of table with board on it.
2. The child was then shown how to place his hands on the table.
3. Then as the tone was sounded the experimenter very quietly placed an M&M candy in the trough and at the same time moving one of the pupil's hands to the trough and getting the M&M. Both right and left hands of pupils were used.
4. Then the experimenter removed his hand from the pupil's hand and the pupil was allowed to reach for the M&M without help.
5. To put the results on a chart a point system was devised. One point was given for proper placement of hands on the table and one point for immediate response to the stimulus. No points were given for delayed response, but the pupil did receive the M&M. The stimulus was presented 25 times during each session.
6. Pupils C and M had passed their hearing test previous to the conditioning experiment and were used as checks.

RESULTS

On retesting with audiometer, all the pupils but F were able to properly respond to the tone stimulus.

Graphs showing the number of points earned at each session are included on the following pages.

DISCUSSION

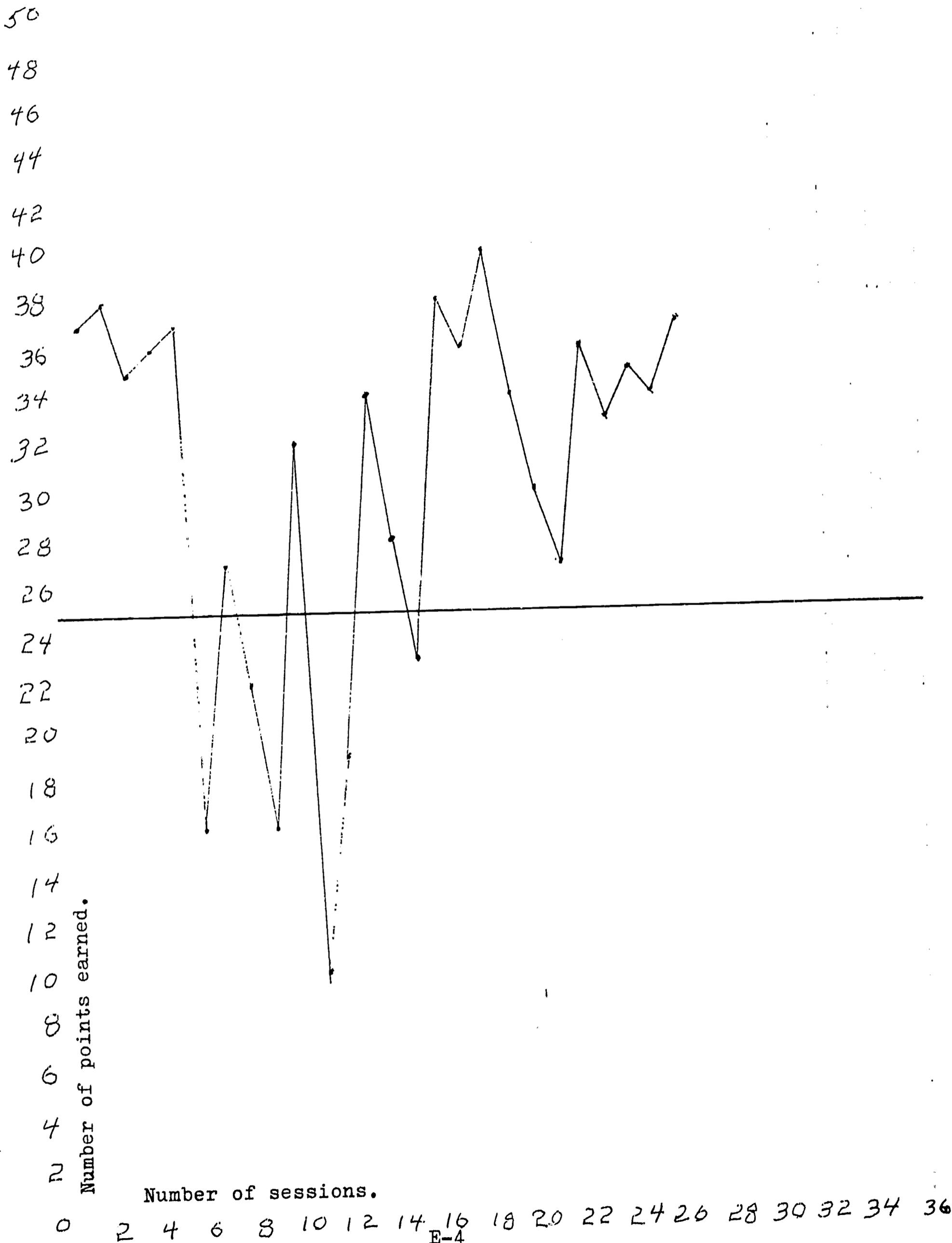
This simple conditioning experiment was designed for the practical purpose of teaching the children to respond to a tone stimulus by raising a hand. These children had been unable to obey directions given at the time audiometric testing was first tried, except for C and M. Several techniques of teaching the response were tried at the time-- showing the child how to drop a block into a metal wastebasket when the tone was heard was one. These failed completely.

These charts were included in this report because the up-and-down scores illustrate the type of daily performance of these children, and to some extent the level at which they

function. The task was too simple to adequately test M, N, and C. Child N's initial very low score and subsequent consistently high performance is indicative of his fear in a new situation and rapid learning when the fear is overcome.

It is interesting to speculate that a similar experiment involving wider spread of level of function might serve as a quick prediction of ability to learn simple responses, and be used as one technique of evaluation.

Child A



Child B

50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2

Number of points earned.

Number of sessions.

0

2

4

6

8

10

12

14

16

18

20

22

24

26

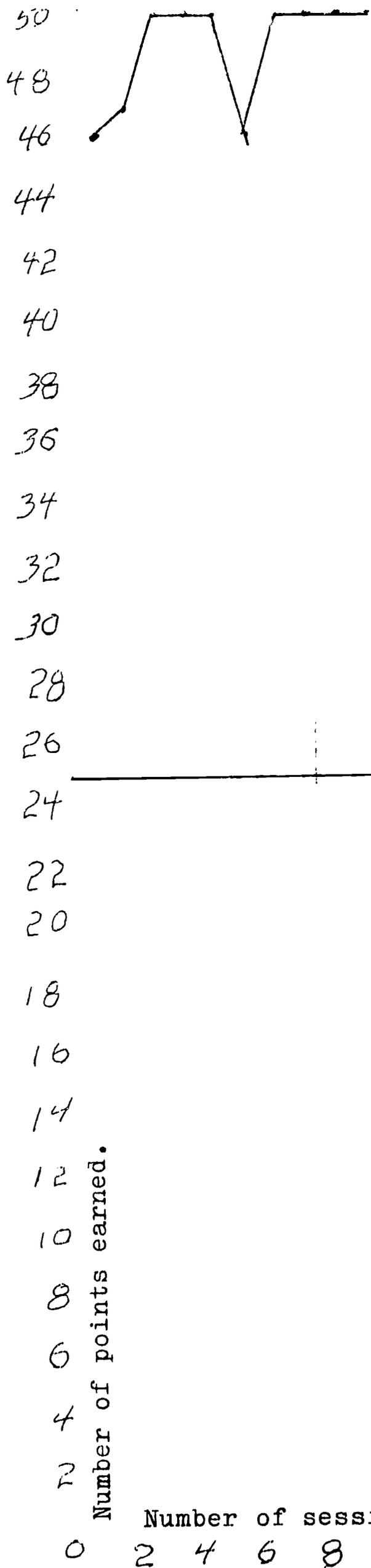
28

30

32

34

Child C

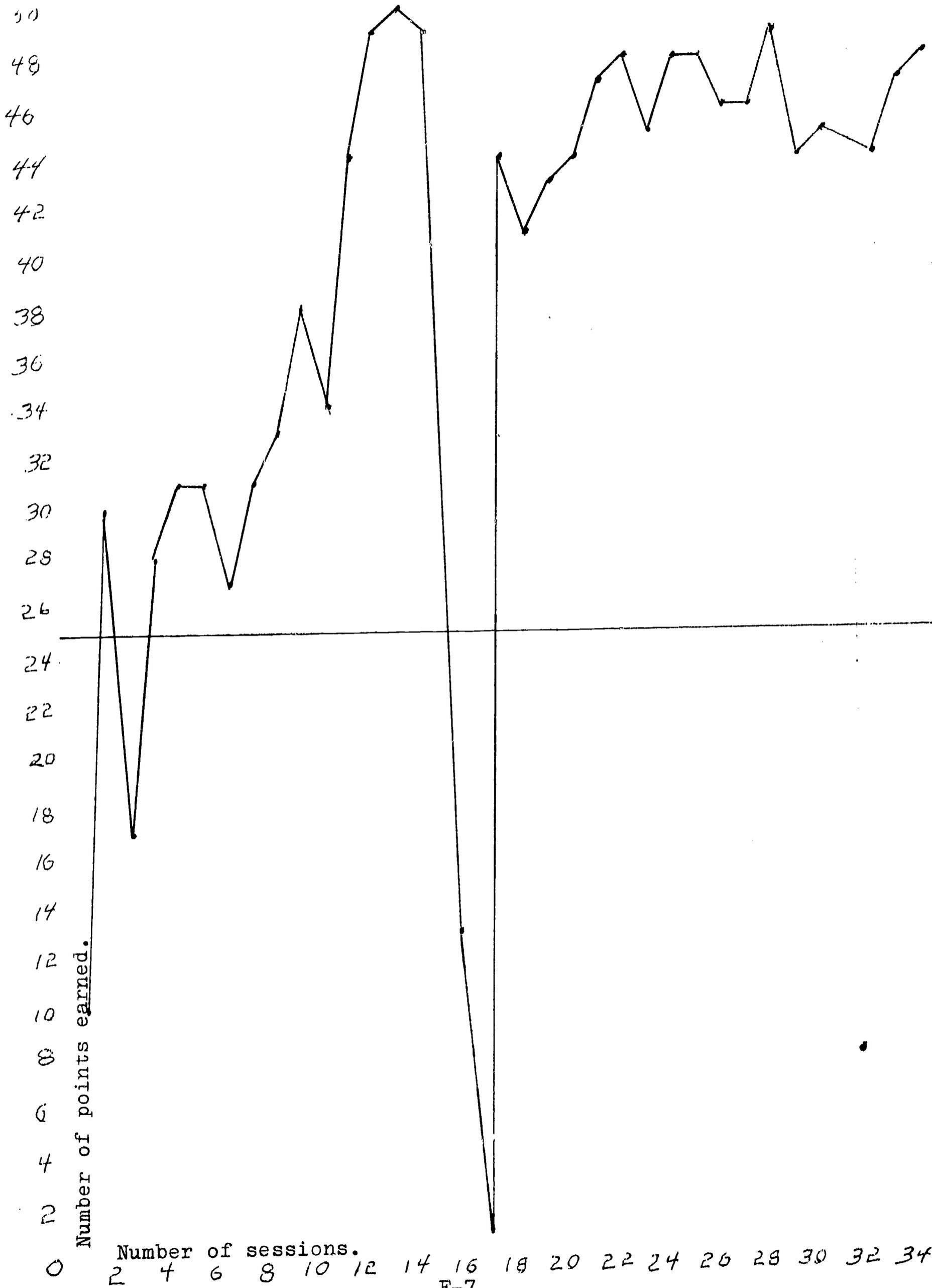


Number of points earned.

Number of sessions.

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

Child E



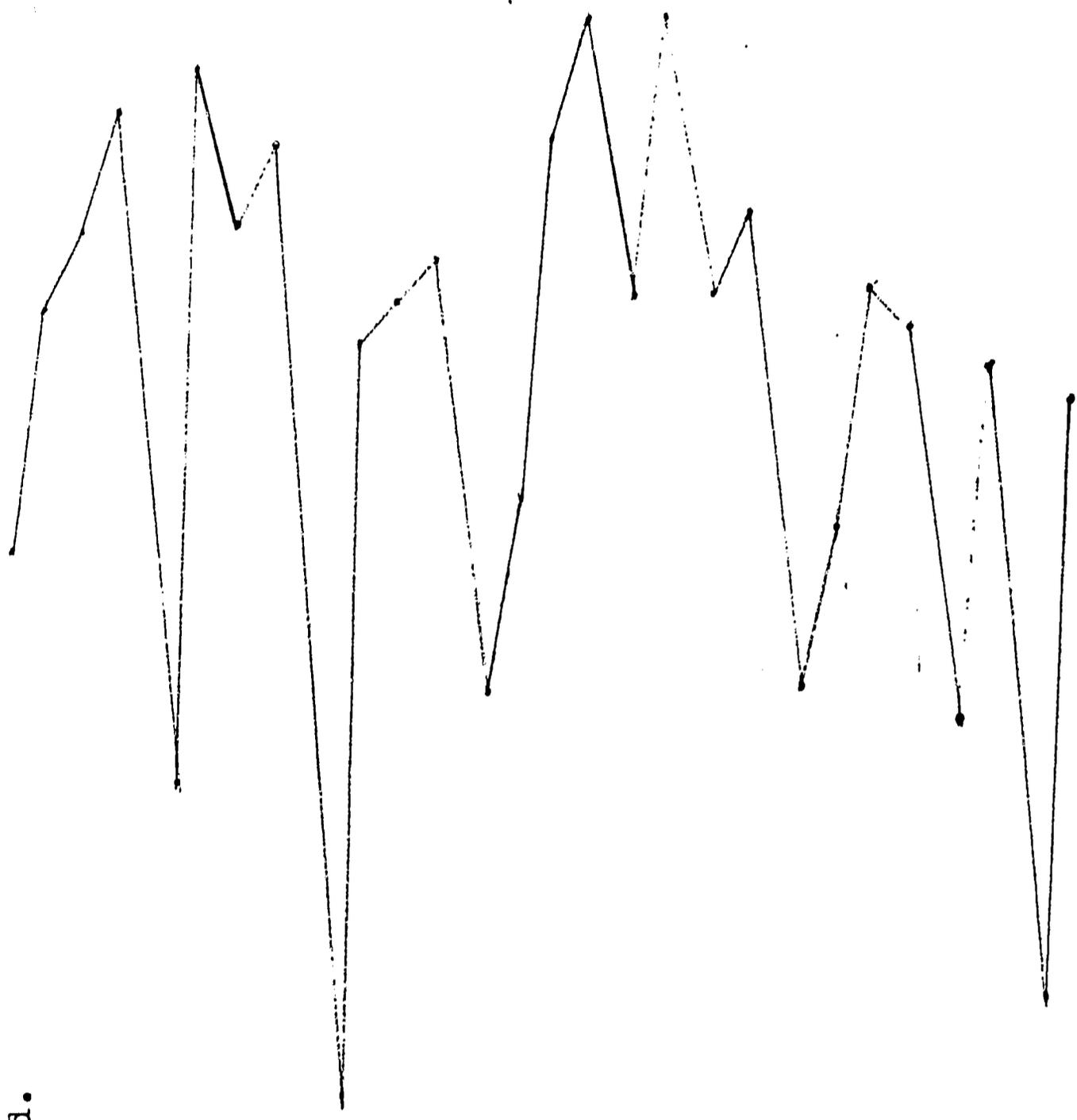
Child F

50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0

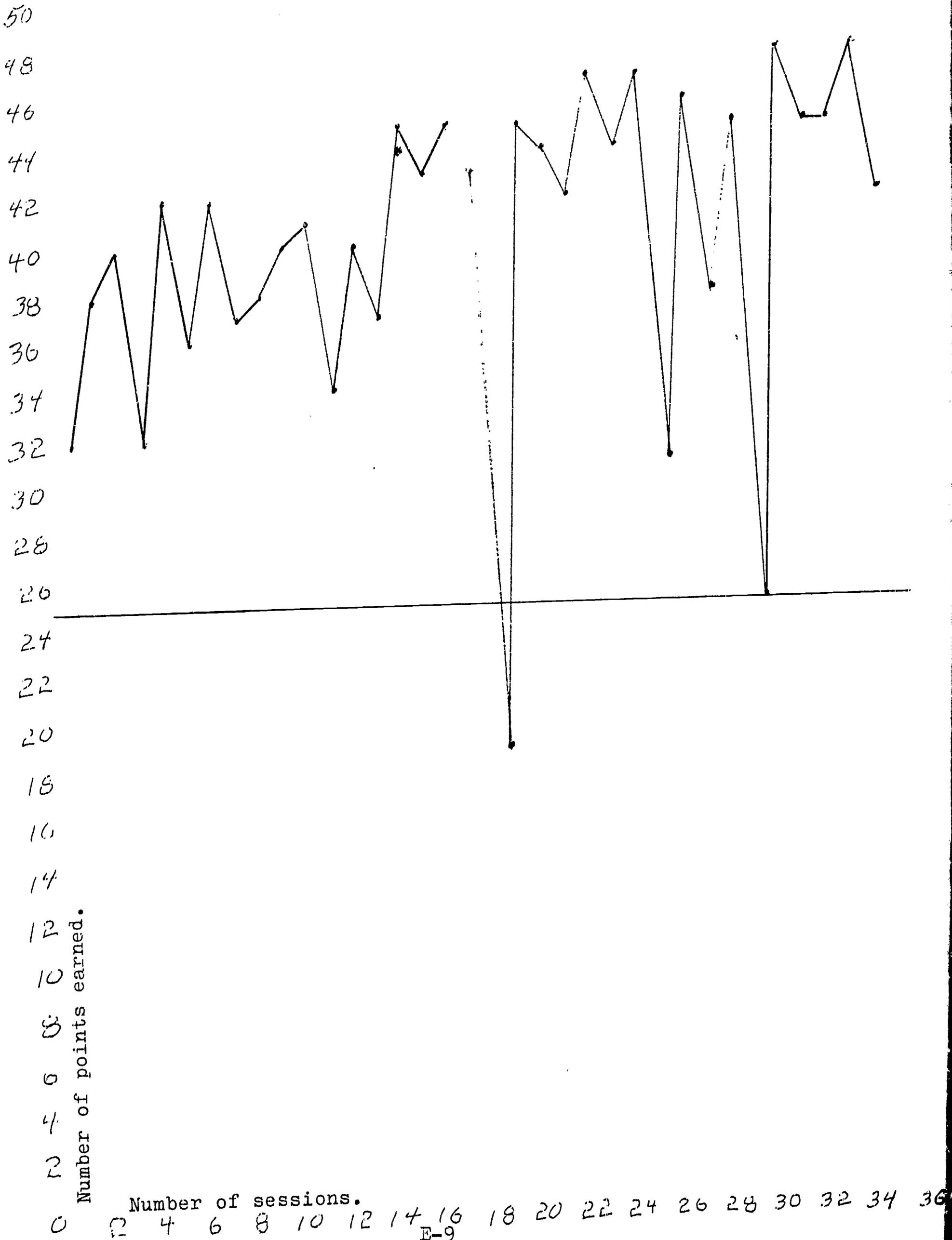
Number of points earned.

Number of sessions.

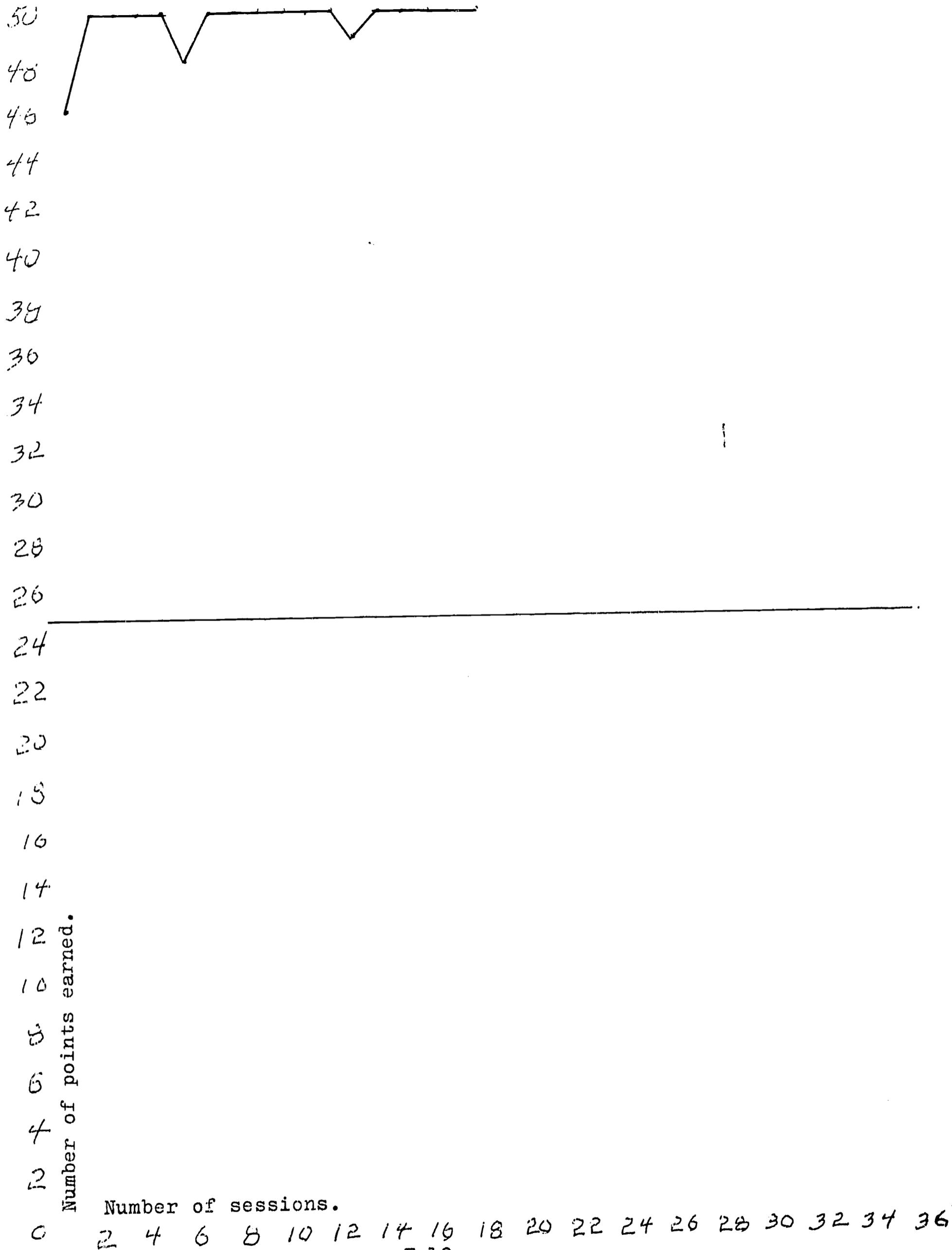
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



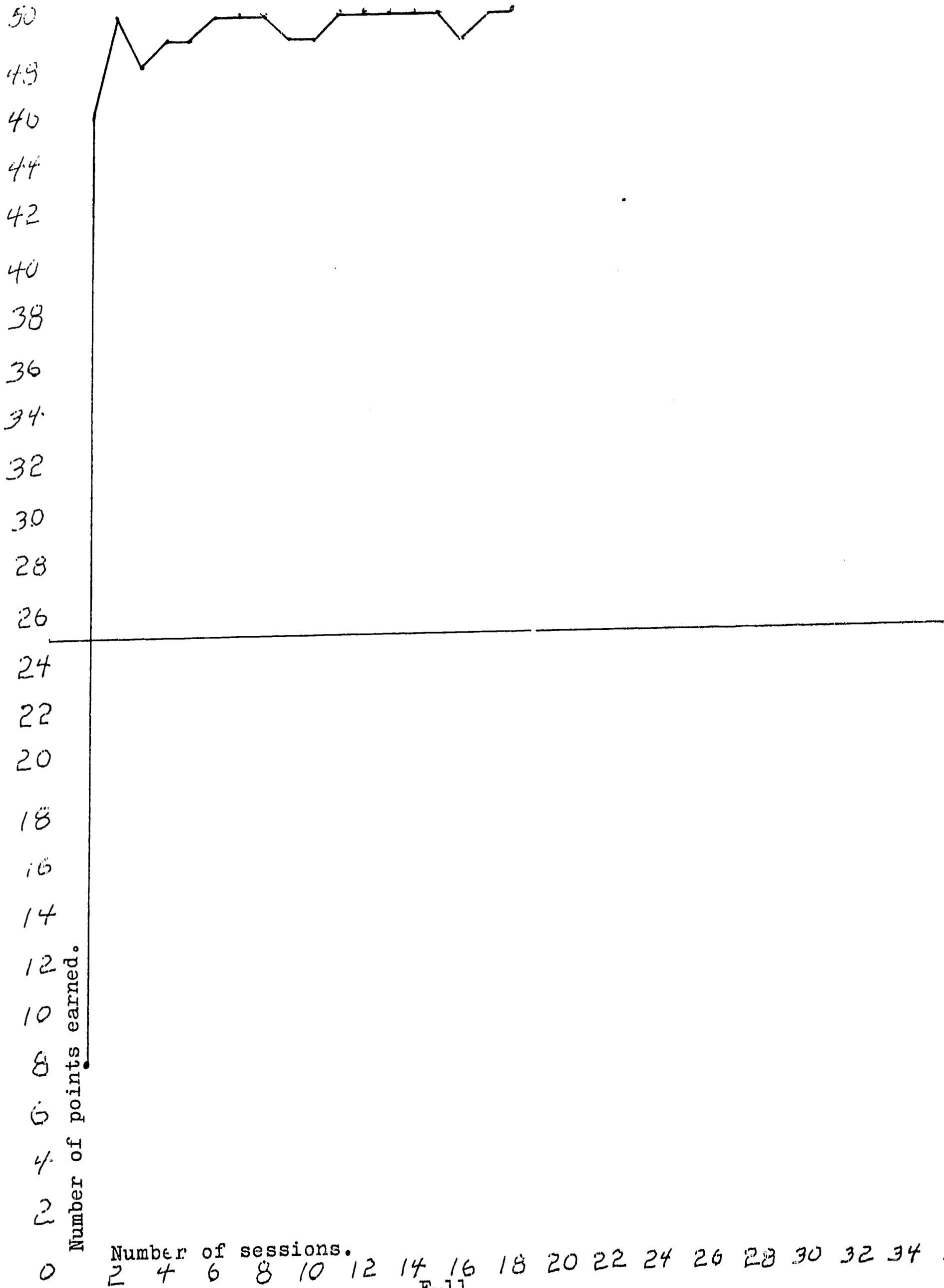
Child G



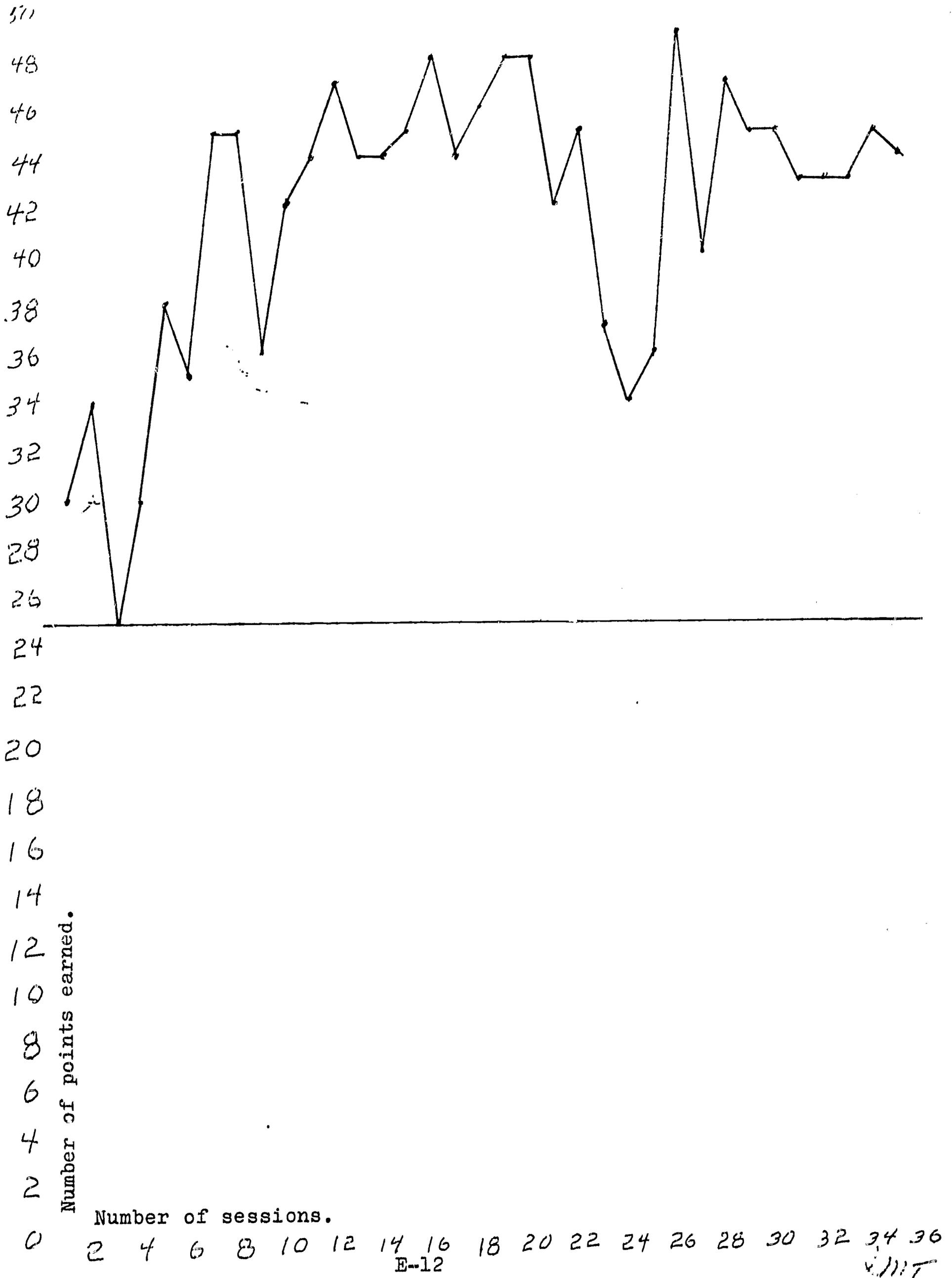
Child M



Child N



Child O



Number of points earned.

Number of sessions.

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